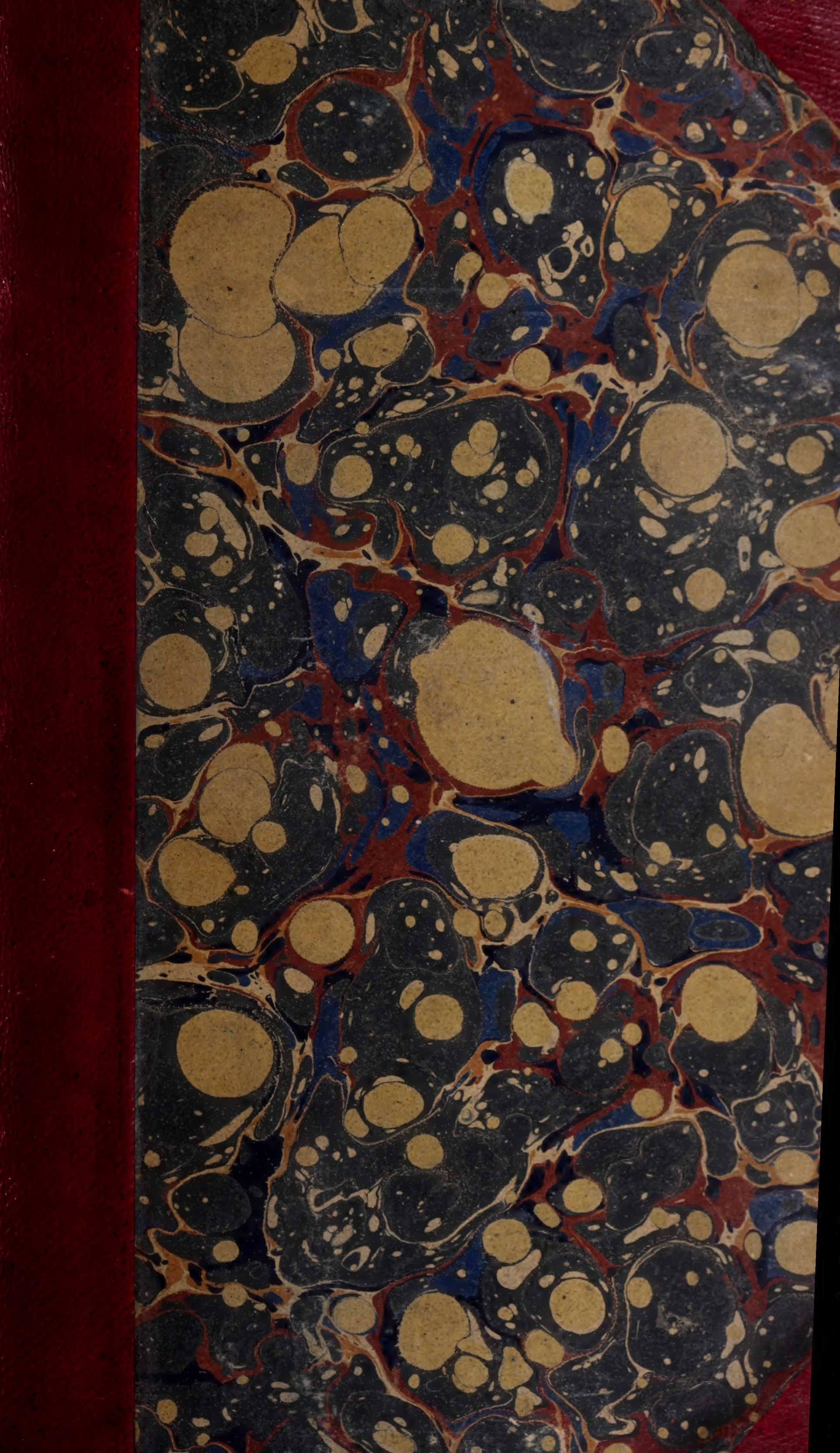

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NEW ORLEANS

Medical News and Hospital Gazette.

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CLINICAL REPORTS OF CASES

OBSERVED AT THE CHARITY HOSPITAL, SESSION OF 1859-60.

By Austin Flint, M. D., Prof. of Clinical Medicine, etc., in the New Orleans School of Medicine.

Case of Hepatic Abscess evacuating through the right lung, ending in recovery. Case of suspected Hepatic Abscess associated with Chronic Dysentery. Remarks on Suppurative Inflammation of the Liver.

Louis Labranche, Canadian, shoemaker, aged 28, was admitted December 19th, 1859.

The previous history was as follows: While coming down the river he was exposed to a heavy rain during the night time. He took a severe cold, as he supposed, and was ill at Vicksburg eight weeks. During that period he suffered from severe pain in the region of the liver, and there existed a swelling beneath and just below the false ribs on the right side in front. Getting no better, he resolved to go to Jackson, in hopes of finding a hospital there. While riding to the railroad depot, a heavy jolt of the carriage occasioned a severe pain, with a sensation as if something had given way, and immediately he began to expectorate purulent matter in abundance. He went to Jackson, but remained there

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only a day, coming on directly to New Orleans, and at once entered the Charity Hospital. He had continued to expectorate purulent matter in abundance.

At the time of his admission, the quantity of expectoration was still large, but it had diminished considerably. The precise amount was not ascertained. It presented the appearance of ordinary pus, with a small proportion of mucus; it did not consist of distinct sputa, but formed a homogeneous mass. Sudden movements caused him to cough and raise freely at times. He had not perceived a bitter taste in the matter expectorated. It presented no appearance of bile, and the latter was not shown by the test with nitric acid. When the matter first escaped, it came, as he stated, almost in a stream, and he was for a few moments nearly suffocated. The pulse was 100, and the respirations not increased in frequency nor labored.

The chest in front, at the lower part of the right side, was contracted. The abdominal movements of respiration on that side were less than on the left side. The lower third of the chest on this side in front was dull on percussion, and behind the dullness was marked over the whole side. The respiratory murmur was scarcely appreciable anywhere on the right side. Subcrepitant rales were heard here and there on that side. No bronchial respiration nor bronchophony.

Treatment.—The *haustus quiniæ* of the hospital ʒ i. (gr. v) three times daily; the syrup of morphia ʒ ii. (gr. ¼) three times; porter and full diet.

The diagnosis was hepatic abscess, evacuating through the right lung. This was based on the existence of long-continued pain and swelling in the region of the liver, and the sudden occurrence of copious purulent expectoration; the history, symptoms, and physical signs excluding tuberculosis, pneumonia and empyema as sources of the pus. The patient was not emaciated; he was able to sit up, and had a tolerable appetite.

Dec. 24. During the night previous to this date, after a long fit of coughing, there occurred a copious eruption of pus for a short time. The expectoration on this date was not abundant. The physical signs had not materially changed. There was no febrile movement. There was no tenderness over the liver. He perspired freely.

Dec. 28. The cough and expectoration had been slight since the 24th inst. His appetite, strength and aspect were improving. There was no febrile movement. The treatment was continued.

Dec. 31. On this day he had suddenly, while lying on the bed, a fit of coughing, and a copious expectoration of pus followed. No material change in the symptoms. The treatment was continued.

Jan. 5, 1860. The patient had constantly improved. The cough and expectoration were now slight. The sputa remained distinct, and consisted of a larger proportion of mucus. The treatment was continued, excepting the substitution of wine for porter.

Jan 8. The patient reported quite well. The cough and expectoration were nearly gone. The dullness on percussion over the right side was much diminished. The murmur of respiration had become developed, and was vesicular, but relatively feeble. The citrate of iron and quinine was prescribed.

The day following he declared that he felt able to do some work at his trade, and desired to leave the hospital. He was accordingly discharged.

Remarks on Suppurative Inflammation of the Liver.

Acute inflammation of the liver ending in abscess, is an affection especially incident to tropical climates. Its occurrence is rare in cold and temperate latitudes, but it is occasionally met with in the latter. In the hospitals of our northern cities it is so infrequent as to be reckoned among the curiosities of clinical experience. In this portion of our country it is not extremely infrequent. It would be interesting to determine the number of instances which occur at the Charity Hospital in the course of a year. This is not readily done, since, in the larger proportion of cases, its existence is not determined before death; and, of the bodies of those who die at the hospital, some are buried or removed by friends without an autopsical examination, and a large number are taken to the medical colleges for dissection. During the past and present sessions, several specimens have been afforded by the portion of subjects allotted to the School of Medicine. To ascertain the pathological connections under which suppurative imflammation of the liver takes place in this climate, and the symptomatology of the affection, is one among the many objects of clinical study for which the Charity Hospital affords materials. We beg to commend this subject to some zealous resident student of the Hospital who desires to render a service to medical science by original researches. As yet, our knowledge of the affection is mainly derived from English practitioners who have resided in India, and from the French settlements in Africa.

It is conceded by practical observers that hepatic abscess may be attended by no symptoms which, with our present knowledge, point to the affection. It may exist without giving rise to any notable disturbance of the economy. A writer in a late number of the London Lancet (Dr. John

Jackson) says that he has "frequently heard the remark of an able and experienced surgeon, that he believed no one who had been many years in India, and had been subject to any disease of the liver or to dysentery, could feel perfectly sure that he had not an abscess in his liver." Symptoms, in some cases, render the existence of suppurative inflammation probable before it is evidenced by the discharge of pus or by any physical signs; but in other cases, there are no phenomena which direct attention to the liver as the seat of disease. It is, therefore, by no means necessarily a reflection on the knowledge or tact of a practitioner, when at a post-mortem examination this organ is found to contain a large collection of pus, which had not been suspected during life. And in this connection it is worthy of note, as a curious commentary on a prevalent disposition, from time immemorial, to attribute various maladies to hepatic disorder, that the positive and well-known lesions of the liver are remarkably latent. Cirrhosis, fatty degeneration, hydatid formations, and carcinoma, as well as abscess, are often unattended by local pain, jaundice or other symptoms, indicating disease in this viscus.

When hepatic abscess is discovered during life, it is generally by the discharge of pus through some outlet, or by a fluctuating tumor over the organ. The discharge, as is well known, may take place in different directions, viz: externally at some point over the site of the liver, into the colon or stomach, and through the lungs. The pus may make its way in more than one direction in the same case; for example, through the lungs and into the colon. I am not aware of any analysis of cases having been made showing the proportion in which the discharge occurred in these several outlets respectively. Here is another subject for investigation pertaining to this affection. The evacuation may take place in directions affording no outlet, viz: into the peritoneal, pleural and pericardial cavities. Instances, however, are comparatively rare—a fact which illustrates a law of conservatism in this affection. Conservatism, moreover, is beautifully displayed in the means by which these accidents are avoided, viz: circumscribed adhesion of the serous surfaces at the points where the ulceration occurs to give exit to the purulent contents of the abscess. If the evacuation take place through the lung, first the peritoneal surfaces become agglutinated at the situation in which the perforation of the diaphragm is to ensue. Dr. Budd states that he has known this adhesion to extend over a space no larger than an English shilling. This prevents the discharge into the peritoneal cavity, and fatal peritonitis. Before the diaphragm is perforated, adhesive inflammation of the pleural surfaces occurs over a circumscribed space, often quite small, within which the lung is perforated. This prevents the escape of the pus into the pleural cavity, and the development of empyema. The lung having been perforated, the matter finds its way into the bronchial tubes, and is expectorated. The diffusion of the pus, to a greater or less extent, throughout the lung, gives rise to certain physical signs which have not as yet been sufficiently studied. But it is remarkable how little pulmonary inflammation is often excited under these circumstances. One would suppose, *à priori*, that pneumonia would be sure to be developed in the entire lung; and the fact that it is not, goes to show that the latter disease involves in its production general rather than local causes.

Evacuation of an hepatic abscess through the lung appears to be a conservative mode. Recovery has been observed oftener when the pus is discharged in this direction than when the abscess points to the surface and the perforation takes place through the integument. This, *à priori*, would certainly not be expected. Statistics relating to this point are however wanting. Dr. Jackson (the writer just referred to) says, "Long experience has convinced me that there is no course which hepatic abscess, when once formed, can take, that holds out such good prospects of recovery by natural means, as when the channel for the discharge is through the right lung; and although abscesses may be opened externally by the aid of the knife, either through the abdominal parietes or through the ribs, or may open themselves by ulceration into the stomach or bowels, there is not the least doubt that the passage through the lungs is the most favorable course for the abscess to take."* Dr. Budd, it is proper to state, entertains a different opinion concerning the prospect of recovery in such cases. He states that "the patient dies, in the majority of cases, exhausted by protracted suppuration and hectic." Here is another interesting point relating to this affection to be settled by numerical investigation. An analysis of all the cases which might be collected from the medical journals during a series of years, would repay the labor of the task.

In the case which I have reported in this article, the patient at the time of his discharge had so far recovered that nearly all cough and expectoration were gone, and he felt sufficiently strong to undertake light work. It is undoubtedly premature to declare that the recovery in this case is complete. A case came under my observation in the Charity Hospital during my last winter's service, in which the patient recovered to a similar extent, and left the hospital, saying that he was able to return to work. This case entered into my clinical reports of cases observed during the last session. At the present time, another case is in the wards of a fellow member of the board of visiting physicians, Dr. J. F. Bell. In the latter case the symptoms and general condition of the patient denote a favorable progress of the affection. In this instance, the evacuation of the abscess was through the left lung; and among the physical signs was a cardiac pleural friction sound, which existed for some days and then disappeared. So far as these few cases go, they give support to the statement quoted above from Dr. Jackson's article, and are opposed to Dr. Budd's opinion.

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* London Lancet, No. for October, 1859, Am. edition, page 303.

When the abscess points over the site of the liver, the propriety of at once making an artificial opening suggests itself. The two authors to whom I have referred (Dr. Jackson and Dr. Budd) concur in the impropriety of surgical interference. They think that cases are more likely to do well in which the perforation is left to the processes of ulceration. It is not easy to understand why this should be so, unless in consequence of a better security against the escape of matter into the peritoneal cavity when the opening is left to nature. The surgeon may not select as the point of puncture a situation in which prior adhesive inflammation of the peritoneal surfaces has occurred. Dr. Budd thinks that the introduction of air is a source of injury incident to artificial, more than to spontaneous, openings. It is difficult to see how the latter should be exempt from this accident, and not the former; nor is it probable that the presence of air in the abscess is so injurious as Dr. Budd supposes. The free introduction of air into the pleural cavity in cases of empyema is not necessarily attended by any unpleasant consequences—a fact illustrated by a case now under my observation (which will be reported hereafter), in which an artificial fistula has been established through the walls of the chest. Whatever may be the disadvantages of opening hepatic abscesses through the integument, experience seems to be against the propriety of this measure. On this point, Dr. Smyth, late assistant surgeon to the hospital, has informed me that since his connection with the hospital these abscesses have been repeatedly punctured, and the cases have generally ended unfavorably. Here, again, is an important question, which can only be satisfactorily settled by statistical data.

The diagnosis of hepatic abscess evacuating through the lung is important with reference to the prognosis and rational treatment. The most striking symptomatic event is the sudden and copious expectoration of pus. A sudden and copious expectoration of pus may be derived from other sources than the liver; it may come from a pulmonic abscess, from a purulent collection within the pleural cavity (empyema), and from a large tuberculous vomica. It is, however, easy to exclude these affections by the absence of the physical signs which they respectively involve, more especially if the patient had been examined prior to the occurrence of the purulent irruption. These affections excluded, certain positive symptoms and signs referable to the liver will be likely to aid in tracing the expectoration to this organ; such as pain, tenderness on pressure, occasionally jaundice, and sometimes enlargement, as determined by percussion and palpation. Does the pus from a hepatic abscess present any distinctive characters? Some writers describe it as red or claret colored. These characters were not noticed in the few cases which have come under my observation. Dr. Budd states, in opposition to Rokitansky, that the pus in abscess of the liver resembles in all respects that from a phlegmon in other situations. Such has been the case in the small number of instances which I have seen. Is the pus in hepatic abscesses frequently mixed with bile?

According to Rokitansky, this is always the case if the abscesses are large, but not when they are small and recent. Both these points call for farther clinical observation. In an immense hepatic abscess which came under my observation in the dissecting room this winter, there was no appearance of bile, as judged by the naked eye, without testing for biliverdin. In none of the cases which I have met with has there been evidence of bile in the pus expectorated. The pigment has not been apparent, nor did the patients perceive a bitter taste. Bile is undoubtedly sometimes present; but it remains to be ascertained how much importance, if any, is to be attached to its absence, as regards the diagnosis. The positive physical signs pertaining to the lungs are, dullness on percussion, more or less diffused, and the subcrepitant rale. These signs are due to the infiltration of the lung with the pus, to a greater or less extent. In one of the cases which I have observed, the bronchial respiration existed over a small space at the base of the lung. It is is not unlikely that extensive pneumonia may be sometimes developed, but as exceptions to a general rule. The physical signs in an extended series of cases would form an interesting and important part of the clinical history of this affection, which is yet to be written.

The diagnosis of the affection before a purulent discharge has taken place, or an abscess is apparent to the touch over the site of the liver, can hardly be made with positiveness. A strong suspicion of latent hepatic abscess is, however, warrantable under certain circumstances. It is well known that in warm and tropical climates suppurative inflammation of the liver is apt to occur as a sequel or concomitant of chronic dysentery. A patient, therefore, in a warm or tropical climate, affected with the latter disease, who presents pain, uneasiness or tenderness over the liver, occasional chills or shiverings, and febrile movement, with other disorder of the system inconsistent with, or out of proportion to the intestinal affection, and not accountable by any other appreciable local affection, may be suspected to suffer from abscess of the liver. This suspicion will be strengthened if the liver be found to be enlarged, or if jaundice exist. Pain in the right shoulder was formerly considered as a valuable diagnostic symptom. Of late years it has been discredited, but perhaps on insufficient data. Although not as constant a symptom as the older writers supposed, it would seem to characterize a certain proportion of cases. Dr. Budd found it marked in five of fifteen cases. In connection with other symptoms pointing to hepatic disease, it is certainly entitled to some weight in the diagnosis.

The following case, in conclusion, is given as illustrative of circumstances warranting the suspicion of suppurative inflammation of the liver:

Jan. 25, 1860. Thos. Muldoon, laborer, Irishman, aged 25, was admitted into the Charity Hospital January 17th, 1860.

In April, 1859, he was attacked with diarrhœa and bloody stools. Prior to that date his health had been good, excepting repeated attacks of intermittent fever. He kept about for ten days after the attack just stated, and then entered the hospital. He remained in hospital for seven weeks, being most of the time confined to the bed. He was then discharged at his own request. The diarrhœa did not cease, and from time to time, not constantly, the dejections continued to be bloody.

He entered the hospital again in June or July, 1859, and remained for several weeks, but obtained no relief. He declared that he found himself better out of the hospital, and when not taking remedies, nor observing much care as to diet. He had applied to several physicians and taken a variety of remedies, but with no apparent benefit. He had not been confined to the bed since he was in the hospital for the first time, but he had not felt able to work.

When he came under my observation in January, 1860, the diarrhœa and occasional bloody stools continued. The number of stools daily varied from four to ten. They were, for the most part, small, sometimes consisting wholly of blood and mucus.

For two months he had complained of pain in the right side, which he referred to the lower part of the chest on this side, over the liver. For the three preceding weeks the pain had been nearly constant. The pain was sharp, and felt especially in forced breathing and in movements of the body. From the time that this pain was developed, he had also had pain just above the acromial extremity of the right clavicle. The latter pain for the last three weeks had been nearly constant.

He had lost considerable weight during the preceding six or eight months. He presented an anæmic aspect. A chill had occurred at the same hour for the three preceding consecutive days, followed by febrile movement on the first two days, but not on the last day. The pulse was 80, and small. The abdomen was depressed, and there was no abdominal tenderness. The lower lateral portion of the chest on the right side was tender on pressure, but no visible enlargement. The vertical diameter of the liver, on the line of the nipple, as determined by percussion, was not greater than normal. The liver did not extend below the false ribs.

He was treated with tannic acid alone, and in combination with opium, the syrup of morphia, and wine; and for diet, milk, rice, and bread. Quinia in full doses was given for several days, to arrest the chills.

Jan. 30. The patient was discharged at his own request. He had reported slight improvement as regards the dysenteric affection, for two or three days before his discharge, but no diminution of the pain in the right side and shoulder.

New Orleans, Feb. 6, 1860.

HYDROCEPHALUS.—PARACENTESIS CAPITIS.

By M. Marsh, M. D., Port Hudson, La.

Messrs. Editors :—I submit for your consideration a case of hydrocephalus, its final treatment by the repeated operation of *paracentesis capitis*, and the result, as not entirely without interest or practical value, although the patient ultimately died.

On the 30th of March last I was called to see a white infant, æt. three months, afflicted with slight cerebral inflammation. The face was flushed, pulse a little accelerated, respiration more frequent than natural, and the heat of the surface somewhat exalted. The pupils of the eye had a natural dilatation and contraction, and the only unfavorable symptom I could observe was starting from apparently quiet and comfortable sleep with a scream, and clinging to its nurse as if in danger of falling. I prescribed half a grain protochloride of mercury, to be given every two hours, with cold affusions to the head. The next morning I found the physician of the plantation present, who had been called in, and, at the request of the father of the child, I turned the case over to him for treatment.

The history of this case furnishes some elucidation of the causes that produced the disease, and something of practical utility in the prevention, if not in the cure, of it. The child's mother died in *child-bed*, of "*typhoid pneumonia*," and from that time until one week before I was called to see it, it was attended by its *aunt* as "*wet nurse*," and was as sleek, fat, and plump a baby as any mother could wish to see. It had received no injury, had taken no cold, and no other reason can be assigned as the cause of the disease, but the change of the natural aliment of the breast to that of cow's milk; as its foster mother treated it with no less sympathy, affection, and kindness than though it had been a natural child, or her own offspring.

I did not see it again from March 31st until July 30th last. At this time the child had a very *peculiar* and *striking* appearance. Its body and extremities were emaciated beyond the power of pen to describe. It seemed as though there were nothing but integuments, blood vessels, and bones left. At the same time, it had the *face* of an infant and the *head* of a man. A perfect "*living skeleton*," except the head, which was apparently twice as heavy and large as all the rest of it. It measured 26 inches in its longest diameter!

Dr. J. W. Jones, the attending physician, had, in the interim, followed up with great energy the whole round of remedies recommended by authors for the treatment of hydrocephalus: digitalis as a diuretic, mercury as an alterative, quinine as an antiperiodic, and ipecac as a counter-irritant, with very little effect, as the head steadily increased in size. When called in consultation on the 30th of July last, I recommended a continuation of the mercurial treatment, with compression by adhesive plaster for a few days, and if no favorable change took place, then paracentesis capitis as a final remedy. The adhesive straps were applied, and mercurial treatment continued until August 20th, without any favorable result, when an operation was resorted to. The instrument used was an exploring needle with a canula, and the puncture made in the anterior fontanella, one inch from the median line. Eleven ounces of fluid were drawn off, clear and pellucid at first, and of a slightly saline taste, like perspiration, but turbid at last. When faintness ensued, the operation was suspended, and compression reduced the head in size two inches. The patient was very much prostrated for two or three days, but revived by the administration of port wine and comp. tinct. peruv. bark, with the continuance of the mercurial treatment. It was playful, would laugh when spoken to, recognized its acquaintances, and seemed conscious of changes in all surrounding objects; but its head increased steadily in size, and the disease was unchecked and unabated.

On the 5th of September the operation was repeated, using, instead of the exploring needle, an ordinary trochar used for paracentesis abdominis, and sixty-four ounces of fluid were evacuated, clear and pellucid, with a very strong smell of urine. *I did not taste it, but have all the evacuations preserved, for the benefit of those who are curious and critical in such investigations.*

On the 11th of September the operation was repeated. *Pure blood* flowing from the canula, it was suspended after the loss of a few drops. The head continuing to increase in size, the operation was performed again on the 18th of September, by Dr. J. W. Jones, "attending physician," and sixteen ounces of fluid were evacuated, resembling port wine or blood dissolved in water. Three days afterwards the child died, without a struggle.

It may be proper here to observe, that at no time after an operation could the bones of the head be compressed so as not to leave a cavity between them and the brain. As the water again accumulated, it could be distinctly heard surging from one side to another as the child was moved, like the fluid in a cocoanut, on moving it about. The bones of the cranium were very much overgrown. Indeed, on the 11th of September, at the operation next the last, there seemed, on percussion, to be a tympanitic condition of the head; a real case of emphysema instead of hydrops.

Now, gentlemen, is it not probable that the change of aliment caused this disease? And again, would not *paracentesis capitis,* with all its *drawbacks,* stood a much better chance of success, if it had been performed before the bones of the head had so inordinately out-grown the size of the brain?

ON HÆMATURIA.

By a Practitioner of Medicine, who has lived twenty-five years in a miasmatic region.

CASE 1. Negro boy Tom, aged 13 or 14; year 1820, or thereabouts; month of September; locality, south bank of Cawles' Creek, Jefferson county, Miss. He had what was then, and is still, called congestive fever; laid for two days unconscious. The physician, a Dr. Dixon, from Greenville, attended; bleeding and cold affusions the only remedies recollected; frequent and ineffectual attempts to force medicine down the throat. Tom got better, and was about, when, to the alarm of his mistress, he was found passing *blood* in place of water. The physician recalled, but prescription not known. Tom recovered.

1834. Same man; month of May; weather wet and cool; cholera prevalent on the river, and sporadic and epidemic throughout the country within ten miles of steamboat landings. It broke out and prevailed fearfully and fatally on Tom's homestead during the last of this and first of next month; Tom being one of those who had no symptoms of the disease. He was brought from the field one afternoon, making, as the overseer said, blood instead of water. He was seated under a china grove, with a white mug, which he half filled before sundown. Strings of mucus floating, with clots of blood attached; grumous deposit; fetid odor. No microscopic or chemical tests applied. Skin hot, eyes yellow, abdomen distended, pulse full, hard, and 85, no pain, but dull and stupid. He was bled to syncope; took eight old fashioned Cook's pills, a grain each of calomel, rhubarb and aloes, and perhaps a little ipecac. Sent him to a warm bed; gave demulcents, flax-seed tea. By morning he had copious bilious stools; urinary secretion improved, though still the color of good cogniac brandy; pills repeated. Tom went to work in a few days.

1850, May. Cholera again abroad on the banks and country adjacent to the Mississippi river; none on Tom's homestead this epidemic; weather cold and wet. Tom has hematuria again; now he is thin, and evidently out of health. Skin cool, pulse weak—90, tongue furred, intellect dull; very weak. He passed, in a small, wiry stream, what to me looked like pure blood—not quite dark enough for venous; spilled on the ground. He had a scruple of calomel, a warm bed, demulcents of flaxseed, and recovered readily.

He had been subject for the last five years to what his master thought was epilepsy. Twice in three years he had been brought from the field on a litter, and lay unconscious more than twenty-four hours, with a cool skin, and weak, rapid pulse; had calomel, revulsives, quinine, and baths, both cold and warm. The last attack, he took pinkroot, and passed many large lumbrici. He has not been so affected since. He is in ordinary health (middle of January, 1860), able and willing to do as much as any one of his years (53).

This man confessed to the writer in 1850, that he had been addicted to masturbation from boyhood, and when he had no wife. His children and grandchildren are unusually likely. For many years in early life he would get beastly drunk when opportunity offered; otherwise, he underwent no unusual hardships or punishments.

Case 2.—Mrs. M., born and raised on the banks of Cawles' Creek, same county and State, say 32 to 35 years of age; had been widowed twelve years; mother of three children, only one of whom survived teething. Her mother is reported to have died from *cold*, with suppression of menstrual and urinary secretions; her father, of chronic diarrhœa. Month of August, 1850; previous month hot and wet; current, sultry and dry. Mrs. M. is engaged to a second marriage, with a man ten years her junior. Country healthy. When her usual menstrual period should have occurred, she had chilliness, and various anomalous (hysteric) symptoms, followed by bloody urine. Her physician was one of the most experienced and reputable of the county. After a week of ineffectual practice I saw her. She was pallid, shriveled, petulant, and by no means her usual self; was restless, little sleep, profuse night sweats, constipated; pulse weak, and over 100 at 9 A. M. Infusion of uva ursi, with nitrate of potash, wine whey, and a light mercurial at night, were prescribed, and faithfully administered two days, without benefit. The season of melons was on hand; and the third day, being the tenth of her illness, she was permitted to partake freely, gluttonously, of watermelon; and the night following, the urinary secretion became abundant and all right. She recovered rapidly, was married in October, and is the mother of three other pretty children.

Case 3.—A negro man, who from childhood had been subject to spasms and a comatose form of fever; usually relieved by bleeding, revulsives, calomel, and pinkroot tea. Always passed plenty of lumbrici. He early became hard of hearing; but had good health, except those acute attacks, which occurred about once in three years.

1853, June. Aged 30; had a pleuro-pneumonia on the left side; was bled; had calomel, antimony, demulcents, and a blister. Was called the day after the blister, and found him sitting on the bedside, pulling what appeared to be bloody strings from the urethra, followed by jets of pure blood. Fever had subsided, though he had pain, cough, and rusty sputa. Supposing the irritation of the urethra from the blister, he had warm hip bath, enemata of laudanum, demulcents, and the like, with relief in the course of the day.

1856, June. Had almost precisely a similar attack, with like symptoms and treatment.

1859, June. Had another attack of pneumonia. Was managed this time without the lancet and blisters; but on the fifth day had the same hæmaturia, followed by delirium and low fever, and died on the fifteenth day; the urinary secretion and mental functions being restored several days before death.

These are not by any means the only cases seen by the writer, but are the most remarkable. Each reader may make his own reflections. No quinine was used.

I have seen bloody urine from blisters, always with much strangury, after doses of oil and turpentine—a common domestic prescription; in bloody flux, gonorrhœa, hysteria, in one case of insanity, and in one of hemiplegia.

The most unobservant professional or layman can but note the variations in the quantity and quality of the urinary discharge day by day, from the character of the weather, aliments, drinks, and mental emotions: damp, cool, and especially foggy days, increasing—dry and hot days diminishing; fear and joy increasing, while grief and despondency reduce the discharge. Whether hæmaturia, more than epistaxis, menorrhagia, or any other of the bloody profluvia, be the result of that bug-a-boo, miasmata, is questioned. People living habitually in low, damp situations, surrounded by decomposing and recomposing matter, are subject to every variety of disease known or named in our nosologies. Whether quinine is to, or has already superseded the *Sampson* of the materia medica—*calomel*, is still more debatable. When the functions of the depurating organs come to be properly understood (and microscopes and chemistry are annually shedding light on them), the practice of physic, which now, like crinoline, goes by fashion, will be reduced to a prophylaxis; and a patient, by exhibiting an excretion, his tongue or other organ, will show the observant physician his predisposition; and a remedy, perhaps a very simple thing, addressed appropriately, may save him a spell of sickness—may be from death.

While on the subject of urinary affections, I will add, that in a practice of five and twenty years I have never met with a recognized instance of stone in the bladder, in the counties of Jefferson and Claiborne, Miss., or the parish of Tensas, La., to which my practice has been confined. I have used, and perhaps abused, calomel and tartar, opium, quinine, and the list of the pharmacologist, without attaching peculiar faith to any one; and, save in intermittent fever, have less faith in quinine than any thing else.

J.

TYPHOID FEVER, AND ITS TREATMENT.

By W. A. Brown, M. D., Cunningham's, Texas.

Since this formidable disease first made its appearance in this country, its cause and cure have, from time to time, enlisted the very best talent in the land. Still, but little is really known of its nature, while its cause remains an inexplicable mystery, and its treatment has been but little better than guess work. That it existed in this country long before it was hailed by its present cognomen, we have no doubt. Drake was certain he had seen it from the first of his professional career, "mixed up" with remittents.

That typhoid fever has no relation with malarial fevers must be admitted by all who have carefully observed the two. It has none of the characteristics of malarial fevers, and is not amenable to the same treatment that cures them. It is true that we sometimes hear of cases cured by large doses of quinine, or in just the same way, and by the same treatment, that a bad case of bilious fever would be. But to our mind, it is nonsense to call such cases typhoid fever.

Every experienced physician who has treated many cases of typhoid fever, must have met with cases in which quinine would have no more effect than so much sand. We have often seen cases of a low form of bilious fever that had been pronounced typhoid fever, which we have cured with a few doses of quinine, judiciously administered. We never regarded such cases typhoid fever. In our opinion it is as distinct from malarial fevers as they are from scarlatina. We do therefore firmly believe that typhoid fever has a cause *sui generis,* but do not pretend to understand the nature of that cause, or from what it emanates.

If we knew the cause, it is highly probable that we would be totally unable to avoid it; and therefore no practical good could arise from such knowledge, unless, perchance, we should be able to prevent the elimination of such cause. So much, then, for the cause.

The treatment of typhoid fever, as before remarked, has been but little more than a system of guessing. The nature and cause being unknown, and the treatment successful in other fevers, without exception, detrimental in this, left physicians to their own wits, without other resource. Hence the great diversity of treatment proposed. We believe a very large majority of our physicians have agreed that to *do nothing* was the best that could be done. This course has been far more successful than the perturbating treatment at first proposed. Turpentine is probably the only remedy that has been proposed in the whole list that has really done good.

Within the last decade, a new system of treatment has been proposed, as set forth by Dr. R. Thompson, of Nashville, Tenn. Thompson's theory of typhoid fever could not be considered a new one, but is made up of a little of every former theory combined. Whether Thompson is correct in his views we do not pretend to say, but think him as likely to be right as any former writer. But as to his treatment, we are sure it is incomparably more successful than any other that has been proposed. Of the *modus operandi* of his treatment we know nothing; but of its success we *can* bear testimony. If Thompson's treatment is fairly and faithfully carried out, it will speedily cure at least nine of every ten cases.

It may be that there is a close analogy between oil of sassafras and turpentine; or, may be, the counter irritants used do something clever, or that something in the compound is antidotal, and destroys the cause.

The treatment is no less valuable because we cannot explain its *modus operandi;* for it would be quite as difficult to explain the *modus operandi* of quinine in malarial fevers; yet none can dispute its utility.

We say that Thompson's treatment will *cure typhoid fever*, and ask every Southern physician who has not tried it to do so before he sacrifices another patient to the uncertainty of former plans. We are aware that some will sneer at his prescriptions, on account of their simplicity. Could anything be more simple than Peruvian bark? and yet it will cure intermittents.

We do not agree with Dr. Thompson in all his views, and yet he may be right. We had read the first edition of Thompson's book for more than two years before we tried his remedy for uterine contractions; but at last we did try it. We had a case in which we had tried every other remedy we had any knowledge of, and failed to give more than temporary relief. We had concluded that abortion must be the final result; and more to amuse the patient than anything else, prepared her a bottle of Thompson's anodyne alterant, which, to our astonishment, gave prompt relief, and she went on to her full term with very little more suffering.

In the early part of 1859 we were consulted by a German lady, who said she had miscarried seventeen times successively. She had tried the best physicians of Germany to no advantage. She said she knew we could not prevent her miscarrying, and only desired a tonic prescription. We obtained a reluctant promise to send and get Thompson's anodyne, and try it, if she became pregnant again. In six weeks she announced the fact that she had again conceived, and got the prescription, which she promised to follow literally. At the usual time—*four months*—she had the usual symptoms, but took the medicine freely, and *was relieved;* and a few weeks ago she gave birth to a fine healthy child, to the exceeding joy of herself and her husband.

This remedy supplies a desideratum in our list of available means, that every physician must have felt severely.

It would be useless to say more of the merits or demerits of Thompson's remedies and his book. It was with the view of calling attention to a new edition of the work, that we produced this article. As an act of charity and justice to the afflicted, we hope physicians will buy it. It is a Southern work, by a Southern man, and should be patronized by every physician South, at least.

It may be had by addressing R. Thompson, Nashville, Tenn., enclosing two dollars, by mail, free of further expense. The book contains 400 pages, and will pay any one well for reading it.

VERBENA VALE, Texas, Feb. 6, 1860.

SPECIAL SELECTONS.

CLINICAL LECTURES ON THE DISEASES OF WOMEN.

By J. Y. SIMPSON, M. D., F. R. S. E. Prof. of Medicine and Midwifery in the University of Edinburgh.

LECTURE XXVI.—*On Ovarian Dropsy.—Its Surgical Treatment.*—Gentlemen : Great diversities of opinion have prevailed with respect to the proper principles on which the surgical treatment of cystic or dropsical tumors of the ovary ought to be conducted ; many methods of surgical treatment have been proposed ; and some authorities have doubted the propriety of all surgical interfence whatever. It would be almost an endless, and, withal, a very profitless task, were I to dwell upon all the details of the different modes of surgical practice that have been resorted to in the treatment of ovarian dropsies. You will be better able to undertake the management of a case when it comes under your own observation, if I now endeavor to point out and illustrate the general principles which must be followed in the treatment of the malady. But let me premise a hope that in the course of a few years—especially as the attention of the profession is now strongly directed to the subject—we may yet see all the means of its surgical treatment still more systematized and reduced to order than they have ever yet been, for then only shall we be able duly to appreciate each, and to know in what case to adopt or in what to reject it.

Of all the surgical means, then, by which it has been attempted to reduce and keep reduced, an ovarian tumor, perhaps the simplest is

I. *The Application of Pressure.*—Mr. Benjamin Bell and Dr. Hamilton, of this city, tried, long ago, to dispel ovarian tumors by means of pressure; and in later years this plan of treatment has been revived by Mr. Baker Brown, who has carried it out much more perseveringly and systematically, and, it is reported, with better success. On what principle, some of you may ask, could we ever hope to arrest the growth or bring about the resorption of cystic ovarian tumors by the application of pressure? I have already tried to show you that such tumors tend to develop themselves chiefly in the direction in which they meet with least resistance to their increase and growth, and it was supposed that by presenting an adequate obstacle to the growth of the tumor towards the abdominal cavity as persistent and effectual as that which it naturally meets with in the hard walled cavity of the pelvis, the further progress of the growth might be stayed, and, perhaps, even a certain degree of diminution produced in the size of the tumor. The same principle of treatment has been applied to other forms of morbid growths also, by Recamier, Arnott, Young, and others. It has been attempted in this way, for example, to check the growth of cancerous tumors, and to bring about their destruction by subjecting them to such a degree of pressure as would hinder the further development of the individual component cells of the compressed mass, or lead to their speedy dissolution and decay. This kind of treatment was carried out long and perseveringly, and in many different ways ; but all hope of curing cancer in this way has now, I believe, been given up ; and, I believe, that for the cure of ovarian tumors, too, such treatment is almost equally hopeless. Compression of ovarian tumors was effected by means of books, metallic presses, or folds of lint and linen cloth, laced and tied over the abdomen by all kinds of bandages. The application of the compressing agent was sometimes preceded by a preliminary tapping, with the view of preventing a reäccumulation of the fluid in the interior of an evacuated cyst, and, with some hope also, of producing the cohesion of its collapsed walls. I have known cases where this treatment has been tried, and have been told by the patients subjected to it that the amount of pain and distress produced by it was almost intolerable. If you inquire with what degree of success this plan of treatment has been attended, I think you will find it but very slight ; and I believe the very few and isolated cases of cure that have been reported as probably or possibly resulting from it will hardly induce you to submit any of your patients to such an irksome and painful process.

II. *Paracentesis.*—The oldest practice, and that which is still most frequently had recourse to in the treatment of cystic tumors of the ovary, is the removal of the fluid from the largest and most prominent cyst or cysts by tapping them with a trocar and canula, or even by means of a simple knife or lancet. Various questions at once present themselves in connection with this mode of treatment. Let us see, first of all, under what circumstances we ought to puncture an ovarian cyst—or, in other words, let us study

1. *The cases requiring the operation.*—In Britain the operation of paracentesis abdominis is, as a rule, almost never had recourse to till the ovarian tumor has attained such a size that it compresses injuriously the abdominal organs, and interferes with their function, or even impedes the action of the diaphragm, and renders respiration difficult, so that the patient is subjected to much discomfort and suffering, her health, perhaps already damaged and impaired, and, it may be, even her life itself is endangered by the distension to which she is subjected. Some writers have attempted to determine and define in what particular cases and conditions the operation should be performed; but, whatever rules you may find laid down regarding it, I repeat that when you come to practice you will usually find that the degree of distress which the patient is suffering, or the degree of danger to which her health or life is exposed, are the indications that guide and impel you to the performance of the operations. Having decided as to the necessity of the operation in any particular case, you have next to determine where the tapping should be made; or

2. *The Place of Puncture.*—The puncturing instrument is usually introduced in the linea alba a few inches below the umbilicus, at about the upper third of the distance be-

tween the umbilicus and the symphysis pubis, because in most cases the cyst is in this locality sufficiently prominent to be easily pierced, and there are no vessels of any consequence in the abdominal wall which are likely to be a source of hæmorrhage, if they should happen to be injured by the trocar or lancet. I don't very well know for what reason, some surgeons have proposed to evacuate ovarian cysts by puncturing them through the bladder. I can easily see that there might be a good deal of danger attendant on such a proceeding, but what advantage it could have over other and safer forms of the operation, I do not understand. I have sometimes tapped ovarian dropsies at other points of the abdominal walls, as in the middle line above the umbilcus, or in one of the lineæ semiculares below it; and we are obliged to select these or other spots in those exceptional cases where the cystic mass is too dense at the usual site for abdominal paracentesis, or where the trocar and canula have failed to draw off any sufficient amount of fluid when introduced in the usual position of the linea alba. If the subcutaneous veins are much increased in size—as they often are vicariously in ovarian dropsies which are large enough to compress the vena cava inferior—be very careful and choose for the insertion of your trocar a spot which presents no enlarged veins beneath the skin. But in tapping ovarian dropsies the abdominal parietes have not always been selected as the seat of puncture. Sometimes they have been tapped through the vagina and the bladder, and I have read of the proposition of tapping also ovarian cysts through the rectum. The primary objection to performing the operation, as a common rule, through any such dependent localities is simply this—the denser portion of multilocular ovarian tumors is, as I have already explained to you, almost always placed inferiorily in the cavity or at the brim of the pelvis, and we can not usually, easily or at all reach the larger cyst or cysts of the tumor by entering the canula from below. In some exceptional cases, however, we can readily enough empty the tumor in this way; and if we can, there is no valid objection to performing paracentesis, as Nonat, Naumann, Watson, Arnott, Ogden, and others have done, by puncturing the dropsical collection through the roof of the vagina.

3. *Results of the Operation.*—If you ask, What results are to be expected from this operation, and with what hope of cure may it be undertaken? I must at once tell you that the hopes of an ultimate and complete cure by means of it are very faint and slight indeed; and that it is usually had recourse to only as a means of temporary palliation. It has happened comparatively but very rarely that the simple tapping of a cystic ovarian tumor has been followed by a final cure of the disease. In ninety-nine cases out of a hundred, where the patient survives the first tapping, the operation requires to be repeated again and again; and every time it is had recourse to the interval, as a general law, becomes shorter and shorter between every two successive tappings. Sometimes women have survived for many years a series of tappings, and enormous quantities of fluid have, in such cases, been drawn off from the cysts, as the following table shows:

TABLE OF OVARIAN TAPPINGS, ETC.

Cases.	Number of Tappings, etc.	Quantity of Contents.
Lady Paget (Dr. Mead)........	67 in 5 years.	240 gallons.
Mr. Ford's case..................	49.	350 "
Ramsbotham's....................	129 in 8 years.	461 "
Morand	in 10 months	427 "
Martineau of Norwich..........	80 in 25 years.	729 "

The table shows you, I repeat, the frequency with which the operation of tapping has been repeated in a few of the more rare and remarkable cases that have been put on record, and the large quantity of fluid that has been abstracted in each case in the course of these oft-repeated evacuations. Sometimes you may possibly meet with a case where the patient does not succumb until after the lapse of many years, and after the operation has been very frequently repeated. But that is certainly not all the history of the ordinary run of instances of ovarian dropsy, for the patient usually dies after the operation has been only a few times performed. Let us ask, then,

Is Tapping a Dangerous Operation?—I believe it is by no means free from danger, more especially when performed for the first time. I have just told you that in some instances the operation has been repeated a great many times upon the same woman with the most perfect impunity, and the observation of cases of this kind where patients have been thus frequently tapped, may have led to the conviction impressed on many professional minds that the operation is as safe as it is simple and easy of performance. But that the operation is not so simple and harmless as it appears, some of you have had an opportunity of seeing in the case of a patient who died in the hospital in the early part of the year. I doubt not some of you will be able to recall to memory the patient I refer to. She was suffering from a large encysted tumor of the ovary, the great bulk of the disease being produced by the excessive development of a single cyst, which I tapped with the ordinary trocar and canula. The operation must have appeared to you a very simple one; there was no kind of complication or peculiarity about it; and certainly we were but little apprehensive of danger at the time. But in a day or two inflammation sprang up in the interior of the evacuated cyst, and the patient died of a form of surgical fever. About the time when that fatal case occurred in the hospital, I saw, along with Dr. Goldstream, another instance of the disease in the person of a young unmarried lady, who had, when in England, consulted Dr. Clay as to the propriety of ovariotomy. Before, however, finally determining on that point, or on the injection of iodine, or other special measure, we agreed to make one preliminary tapping, to see what might be the nature of the contained fluid; whether there were any adhesions, and what, in short, were the exact characters, relations and conditions of the tumor, as far as they could be ascertained, after the evacuation of the principal cyst. A quantity of pale, bland-looking fluid escaped, and there was nothing noticed at the time in connection with the case to make us apprehensive of the result. But, as in the other case, the lining membrane of the cyst inflamed, and the patient died. Two cases of this kind, occurring so nearly at the same time, serve to remind us very forcibly of what we so readily forget in the midst of the ordinary run of successful—or, at least, innocuous—cases of the operation, viz: that simple tapping of a cystic ovarian tumor may sometimes be fatal. In these two instances, the patients were both operated on for the first time; and I mention this circumstance in order to impress it more emphatically upon you, that the operation is chiefly dangerous when the cyst is for the first time evacuated. When once a patient has been subjected to the operation successfully, or, at least, without undergoing any special hazard, she is comparatively safe, and the operation may be repeated as often as the urgency of her symptoms require it without the same degree of fear of a fatal issue. When a tapping is performed for the second, third, or fourth time, it seldom by itself proves fatal; for when the patient survives the first operation, it is not until she has become exhausted by the successive accumulations and repeated evacuations of the fluid that she finally sinks from gradual exhaustion and irritative fever which succeeds the series of operations. Thus, I have before me a preparation of encysted dropsy of the ovary, taken a short time ago from the body of a patient who died of that disease. The tumor had been growing for about three years, and in the month of July, of last year, it had attained such a size, and interfered so much with the patient's health, that I was obliged to tap her then, for the first time, in order to relieve her of her urgent symptoms. She got over the operation remarkably well, and enjoyed tolerable health for three or four months; but in the end of November the tapping had to be repeated, because of the great reäccumulation of the fluid and the recurrence of the symptoms. She thus again procured a temporary relief, but now of shorter duration, for in two months the tapping had to be again performed. Her recovery on this occasion was not so perfect, and when, in a few weeks afterwards, the fluid was again drawn off, it was found to be mixed with pus. From this time her health and strength rapidly declined; the paracentesis had again to be repeated three different times, and after each renewal of the operation she was found weaker than before, till at last she sank and died in rather less than a year from the time the operation had been first performed. Such a history is the common sad history of many a case of ovarian dropsy and ovarian tapping; though there are many where the progress of the disease is less rapid, and where the evacuation of the fluid requires to be effected much more frequently ere the patient finally succumbs. But all of them alike show that when the first tapping has been safely and successfully got over, the operation may usually be repeated often with less immediate danger. Why is it—you may ask—that the operation is so much more dangerous when it is performed for the first time? It is usually supposed, and it has often been said, that tapping an ovarian cyst is a very simple operation. But in first cases, at least, it is really not so. After the operation has been once performed, you may often expect some adhesion to have taken place between the surface of the tumor and the abdominal parieties, so that the puncturing trocar most probably only penetrates these fibrous masses in future operations; while in first tappings, or in cases where no adhesions have been formed between the tumor and the abdominal wall, the peritoneum is wounded at two points, in one or both of which inflammation may readily be set up, and whence it would speedily spread over a large extent of surface. The fluid escapes usually to some degree into the peritoneum, and all may go on safely enough if this fluid be healthy in character, and unmixed with inflammatory products. But in first cases, with the operation usually postponed as long as possible, you will not unfrequently find that the fluid that flows out is mingled with inflammatory products; and should any of this deteriorated and morbific matter escape past the canula, or through the unclosed aperture of the cyst-wall into the cavity of the peritoneum, it would be sure to light up a degree of inflammation there which might soon prove fatal. We have not very many statistics relating to this subject, but I show you here a table, from which you can learn both how frequently ovarian tapping proves fatal after its first performance, and how very speedily in the majority of cases the disease hurries on to a fatal termination after the practice of tapping the cyst is once begun. The table is drawn from an essay by Dr. Fock, published at Berlin in 1856. Several of the patients were tapped many times. The table shows merely the

DATE OF DEATH OF THE PATIENTS AFTER FIRST TAPPING IN 132 CASES OF OVARIAN DROPSY.

25	died within	some hours or a few days,
24	" "	six months,
22	" "	the first year,
21	" "	the second year,
11	" "	the third year.
29	only were alive at end of last date.	
132		

The mortality from first tappings, or in other words, the proportion of the 132 patients that died within a few hours, or a few days at most, after the operation was performed for the first time, was 1 in every 6. Professor Kiwisch, of Wurzburg, lost 9 patients out of 64, or about 1 in every 7, within twenty-four hours after their first tapping for ovarian dropsy. Several years ago Mr. Southam, of Manchester, published a table from different sources of the results of 20 cases of ovarian dropsy treated by paracentesis. Of these 20, 4 died within a few hours after the first tapping; 3 within the first month; 14 in all within nine months. Of the remaining 6, 2 died in eighteen months, and 4 lived from periods varying from four to nine years. Dr. Meigs, of Philadelphia, speaks of his impression being that among the first tappings of ovarian dropsy which he has witnessed during his long and useful professional life, nearly one-half have been speedily followed by the death of the subject from peritonitis, developed soon after the performance of the operation. This mortality is certainly much larger than the average. But I have said enough to make you cautious and careful in regard to your prognosis in reference to tapping an ovary for the first time. In short, all experience and all statistical records go to show that the operation of tapping for cystic disease of the ovary is not always a safe operation, that it is not usually a satisfactory one, and that it very seldom proves successful. It is very rarely, indeed, that it ever produces a cure; at the best it is usually only a temporary palliative, relieving the patient from symptoms very distressing and immediately dangerous. But after a longer or shorter period the symptoms of distress and danger thus abated and averted are almost sure to return and call for a renewal of the operation; and so the case goes on with intervals of relief following the repeatedly-performed operation, but growing always shorter and shorter till finally the patient gets worn out and dies.

I shall continue my remarks on the surgical treatment of ovarian disease in my next lecture.

EDITORIAL AND MISCELLANEOUS.

Report of the Board of Administrators of the Charity Hospital, to the Legislature of the State of Louisiana, January, 1860.—Too late for notice in our last number, we received a copy of this Report. We know not why (we suppose there must have been some good reason), but we could only procure a copy by dint of persevering management. We should think the medical journals of the State entitled to a copy, if any at all are issued outside the legislative halls.

The report shows that there have been admitted into the institution, during the year 1859, an aggregate of 12,775 patients; of which were discharged 11,257, died 1,321. Here the report of the Vice-President stops; but there is a deficit of 197, and we suppose these must have——. What did become of them? The statistics are herein vitiated.

There was an increase of 2,440 patients over the year 1857, and an increase of 1,438 over 1858. The Vice-President attributes the increase to the steady growth of the city, but more especially "to the vast influx of a transient, and in part a pauper, population, which the new avenues and increased facilities of travel have thrown upon us from other States of the Union."

Of the whole number of patients, 2,011 were natives of the United States, 10,753 of foreign countries, and 11 unknown. Of the natives, the greatest number (453) came from New York; the next greatest number (377) from Louisiana; the next (194) from Pennsylvania; the next (113) from Ohio; and the next (108) from Massachusetts. Of the foreigners, the greatest number (5,888) were from Ireland; the next (1,748) from Germany; the next (742) from France; the next (591) from England; and the next (514) from Prussia.

In January there were 876 admissions and 88 deaths; in February, 672 admissions and 79 deaths; in March, 767 admissions and 74 deaths; in April, 678 admissions and 75 deaths; in May, 681 admissions and 79 deaths; in June, 755 admissions and 79 deaths; in July, 1,007 admissions and 98 deaths; in August, 1,140 admissions and 95 deaths; in September, 1,544 admissions and 119 deaths; in Octoer, 1,836 admissions and 200 deaths; in November, 1,586 admissions and 177 deaths; in December, 1,233 admissions and 158 deaths. Total males admitted, 10,785; deaths, 1,092. Total females admitted, 1,990; deaths, 229.

There were 61 male and 48 female children born during the year, of which 1 was still-born.

Of the whole number of admissions, about 3,000 were surgical. Of these, there were of wounds, penetrating, 26; incised, 145; punctured, 21; lacerated, 34; gunshot, 28; poisoned, 1. Of fractures, 159; dislocations, 33; abscesses, 124; carbuncle, 23; aneurism, 7; amputations, 22; cancer, 22; syphilis, 498; ulcer, 276; gonorrhœa, 119; besides a great number of other surgical affections. Independent of these 3,000 cases are a great number of diseases of the eye, of all sorts.

Of the medical cases, the principal are phthisis, 422; pneumonia, 118; intermittent fever, 3,707; bilious, 335; remittent, 287; typhoid, 252; yellow, 105; congestive, 58; gastritis, 112; diarrhœa, 927; dysentery, 261; delirium tremens, 236; bronchitis, 205; pleurisy, 72; rheumatism, 579, and all other diseases in fair proportion.

The Treasurer's account shows $76,512 94 expended; and the "debts of the Charity Hospital," to February 1st, 1860, for meat, bread, etc., etc., etc., amount to $20,000. So that the total expense for the year has been nearly $100,000! The meat bill of the institution amounts to $19,125 59, for we find an item of $11,125 59 in the list of expenditures, and an item of indebtedness for meat of $8,000. Putting the meat down at seven cents per pound (a full price, when we find a butcher recently offering to furnish the workhouse of this city for five and a half cents), and we have a daily consumption of 435 pounds of meat throughout the year! Say that there are 100 well persons about the establishment, and that they each eat one pound of meat daily, and we have still 335 pounds for the sick. Say there is an average during the year of 700 sick persons (an enormous average), and we have nearly a half pound of meat for each one daily—the amount allowed to field hands on our plantations! And all this is only butcher's meat—chickens, etc., altogether another item.

Then for the bread item. There is the total amount (paid and due February 1st, 1860) of $10,901 86 for bread. Each dollar will buy, of the very best bread furnished in our city, twenty loaves—making an average of 218,020 loaves for the year, or 597 (say 600) loaves per diem. Let us give all the well persons, whom we will consider good eaters, two loaves a-piece, and then we have 400 loaves of bread for the sick, or more than half a loaf each. In other words, we have each patient consuming half a pound of meat and half a loaf of bread daily, besides milk, tea, coffee, broths, etc.; for we find the additional items of expense, viz: groceries, including porter and ale, $11,278; marketing, $3,283; potatoes, corn meal, etc., $992; milk, $3,067; with several thousand dollars due for same on the 1st of February, 1860. Can any hospital in the world show feeding equal to this?

As a field for the pursuit of medical knowledge, can a reasonable man ask for extension? He who is interested has only to consult our statistics, and he will find that New Orleans is now the real medical centre of the South, or indeed of the whole country, for this hospital is open to the student as no other is.

Speaking of statistics, we long to see the day when the Legislature will insist that a complete analysis of the cases seeking relief in this institution shall be annually furnished by some competent medical man. None but a medical man can properly perform the task, and then he must be a competent one. Such information as could thus be elicited from the books of the institution would be of incalculable value. As matters stand, all is chaos. As a true lover of our profession, we anxiously look for the inevitable dawning of that day which will make the great Charity Hospital truly the crowning glory of our State.

TILDEN & CO. AGAIN.—Our readers have not forgotten an exposition made in this journal of the unreliable quality of extracts sent to this market by Tilden & Co., manufacturing pharmaceutists and chemists, New Lebanon, N. Y. We did not measure our denunciations of the nefarious traffic, and gave a full account of the deleterious effects of the compound cathartic pills of these manufacturers, as reported in other journals. The Boston *Journal* took up the cudgel for Tilden & Co., and announced that they would fully explain matters in its pages. Up to the present moment we have looked in vain for the explanation.

But we do not know that we should have mentioned their names again, had we not recently received a note from them inclosing an advertisement of their wares, and desiring to know on what terms we will stitch them into our journal. They have insulted us, however, and we will resent by replying, that we would rather stitch the advertisement of Gayetty's medicated paper for the water closet under our cover than the sheets they send us. The medicated paper can do no harm, and we have no idea that the originator of it aspires to any other title than that of quack; while these manufacturers of spurious compound cathartic pills and fermenting extracts have extensively preyed upon the credulity of the profession and inflicted infinite injury on suffering humanity. Once more we say that we absolutely contemn the trafficker in spurious drugs, because his traffic is the most iniquitous on earth; and the moment we arrive at the belief of the guilt of any man or set of men, let them keep clear of this pen of ours, for what little might it possesses will surely be laid upon their heads. So far from doing aught to promote the sale of the so-called medicines poured forth from the manufactory of Tilden & Co., we would like to be despot of the South, that we might pitch into the fire every gallipot, bottle, or pill box with their name on it. We have watched the failure of their extracts on our poor patients; we have seen the lids of strong wooden boxes being lifted by the fermenting mass within; and we have read, and quoted into these pages, authentic accounts of the deleterious effects of their compound cathartic pills. Do they wish us to continue to advertise them?

THE PAINS OF LABOR A CURSE.—When chloroform was first administered to parturient women to allay pain, there were strong objections urged against its use by some of the clergy, who thought that this suffering was visited on Woman as part of the punishment for her delinquency in Paradise, and to interfere in any manner was neither more nor less than sacrilege. Common sense has triumphed over fanaticism, however, and the only considerations which influence the obstetrician in the administration of the agent are those which have reference to the physical well-being of his patient. All observing men and women ought to know that the throes of agony connected with labor are not peculiar to Woman, but may be observed to take place daily in the lower order of animals. For our own part, we have seen the mare, the cow, the sheep, the sow, the bitch, and the cat in the act of bringing forth their young, and in all the evidences of acute physical suffering were manifest.

These remarks are elicited by the fact of having met a friend this morning who told us that, although a bachelor, he had a birth in his house. His cat had just had kittens, and he described her suffering, as indicated by her piteous cries, as being terrible.

SOUTHERN STUDENTS AT THE NORTH.—The *American Medical Gazette* publishes a list of the students in attendance this season in the University College, New York city, and of 411 we find 202, or nearly fifty per cent., are from Southern States.

THE NEW MEDICAL COLLEGE IN CALIFORNIA.—The late number of the *Pacific Medical Journal* severely criticises Dr. Cooper, of San Francisco, and the Medical College which he has recently established there. We, of course, know nothing of the state of affairs, but the honor of the profession demands that accurate data be placed before us. With the present light shed on the matter, we do not see that first course students from California would meet with a very warm welcome in the schools of this part of the country. If it is true that Dr. Cooper is only an "advertising doctor," and his school but one of his means of advertising, let it be well known.

REMOVAL OF THE PAROTID GLAND.—In the late number of the *Chicago Medical Examiner* Prof. Titus Deville publishes an able critique of Prof. Brainard's report of removal of the parotid gland. We are glad to see this subject brought before the profession, and we trust it will be most thoroughly discussed. There are two very interesting questions involved. First, Can the gland be removed? Second, Is it ever the seat of other than enchondromatous disease?

For our own part we have always believed with Dr.

Deville, that its removal is only *possible*. Probably no man has ever yet effected the removal, however honestly he may believe to the contrary. In relation to the question of its being the seat of the diseases for which its extirpation has been attempted, we confess to Dr. Deville's having told us far more than we ever knew before. He shows almost conclusively that it never is. He wields an able pen, and is a foeman fully worthy of Dr. Brainard's steel.

OBSTETRIC PHENOMENON.—Dr. E. McDonnell, of New York city, reports in the *New York Medical Press* for January 2, 1860, a case in which he performed version, and on examining the head of the child, the bones of which were "unusually developed," he discovered "a fracture with depression on the right parietal bone, over a space of two inches in extent"—the scalp being "partially abraded and ecchymosed." The Dr. says this fracture "corresponded to the part that hitched on the brim of the pelvis, and demonstrates the force of the uterine expulsive powers."

Does the Dr. really believe that the uterus can push the head against the pelvic brim with such force as to fracture the bones, more especially when they are "unusually developed?" On the contrary, has it never occurred to him that in making traction after version he may have induced the fracture?

DR. BROWN-SEQUARD.—A "National Hospital for the Paralyzed and Insane" has been projected in London, and Dr. Brown-Séquard, the eminent physiologist, whose researches in relation to epilepsy and paralysis have given him an enviable and extended reputation, has been appointed physician, in conjunction with Dr. J. S. Ramskill.

Delirium Tremens.—Dr. Glovinger, of Philadelphia, recommends turpentine for delirium tremens. He gives it *ad libitum.* Says he has given table-spoonful doses every hour, and has given six pounds before narcotism ensued!

To Our Subscribers.—This number commences vol. 7 of the *New Orleans Medical News and Hospital Gazette.* Since we have been connected with the publication, as Editor, we have endeavored to perform our onerous duties faithfully. Whether we have succeeded others must determine. We know we have done an immense deal of hard work, for which we have received not one dollar in the way of remuneration. For the future, all that we can promise is the same adherence to all our obligations, still hoping that each subscriber will discharge his. Shall we not confidently anticipate speedy remittances and additional subscribers, as their acknowledgments of our services rendered? Since our last number went out some of sur oldest delinquents have "come to the scratch" like clever men, and settled up in full. Will not others follow suit? Because it is not now done, we are denied the pleasure of enlarging and otherwise improving our journal, and the printer is growling. Give us two thousand paying subscribers, and we will furnish such a journal as no country has yet seen, and we will pay every contributor too.

There will be no change in the style of the present volume, except that we will no longer publish lists of payments. Those who owe large amounts take no pleasure in seeing their names published even when they pay up, and it is our earnest desire to afford only pleasure to all who read our pages. We will send receipts to all as soon as the money reaches us, and we hope to be kept quite busy in this way.

BOOKS AND PAMPHLETS RECEIVED.

"*Therapeutics and Materia Medica. A Systematic Treatise on the Action and Uses of Medicinal Agents, Including their Description and History:* By ALFRED STELLE, M. D., late Professor of the Theory and Practice of Medicine in the Medical Department of Pennsylvania College, etc., etc. Philadelphia: Blanchard & Lea. 1860."

This work was announced as in preparation several years ago, and, in common with many others, we have been looking year after year with some impatience for its publication, believing that it would prove to be a valuable addition to the medical bibliography of this country. We hail its appearance at length with pleasure, and we have hastened to give it an examination preliminary to a more careful study. It comes in two goodly sized octavo volumes, bearing, in its typographical aspect, the characteristics of the excellent publishing house from which it emanates.

Our expectations of the value of this work were based on the well known reputation and character of the author, as a man of scholarly attainments, an elegant writer, a candid inquirer after truth, and a philosophical thinker. We knew that the task would be conscientiously performed, and that few, if any, among the distinguished medical teachers in this country, are better qualified than he to prepare a systematic treatise on therapeutics, in accordance with the present requirements of medical science. Our preliminary examination of the work has satisfied us that we were not mistaken in our anticipations. In congratulating the author on the completion of the great labor which such a work involves, we are happy in expressing the conviction that its merits will receive that reward which is above all price—the grateful appreciation of his medical brethren.

We have read with care and much interest the introduction to the work, extending over the first one hundred pages, in which the author considers the sources from which medicines are derived; the sources of knowledge in therapeutics; the physiological effects of medicines, their local and remote action in disease, and the influences modifying their effects. We would commend to the attention of the reader more especially the remarks on the sources of therapeutical knowledge. Recognizing, as the basis of this knowledge clinical experience, he represents candidly its difficulties. He accords to the numerical system of study its just value, not considering it as above the liability to fallacy, but as incomparably superior to that sort of clinical experience, which too often is founded on the recollection of a few facts that appear to sustain, to the exclusion of the larger number which militate against preconceived notions.

We have looked over the body of the work sufficiently to see that the subjects are well arranged, and presented in a style which is both clear and elegant. The limits to which this article is restricted by want of space, would not permit a more extended notice, were we prepared to consider fully the merits of the work. As a fair exponent of the existing state of therapeutical knowledge, we predict for the work a position which will give the author no occasion to regret the time and labor bestowed upon it.

"*A practical Treatise on Fractures and Dislocations.* By Frank Hastings Hamilton, M. D., Professor of Surgery in the University of Buffalo, etc., etc., etc. Illustrated with two hundred and eighty-nine wood cuts. Philadelphia: Blanchard & Lea. 1860."

We regard this work as an honor not only to its author, but to the profession of our country. Were we to review it thoroughly, we could not convey to the mind of the reader more forcibly our honest opinion expressed in the few words—we think it the best book of its kind extant. Through the pages of the *Buffalo Medical Journal* we have long been interested in the author's writings on fractures, and now he has placed the result of his patient investigations before us in one of the most beautifully executed volumes of 750 pages ever issued from the press of Blanchard & Lea. Every man interested in surgery will soon have this work on his desk. He who does not will be the loser.

"*Introductory Lectures and Addresses on Medical Subjects, delivered chiefly before the Medical Classes of the University of Pennsylvania.* By GEORGE B. WOOD, M. D., LL. D., President of the American Philosophical Society, etc , etc., etc. Philadelphia: J. B. Lippincott & Co. 1859."

We prize this book for several reasons. First, it reïntroduces us to familiar intercourse with one whose teachings in materia medica it was our lot to enjoy. Second, because there is a chaste style about the lectures which is worthy of emulation. Third, because the lectures are replete with valuable points which will at once arrest the attention of the intelligent reader. We would not be without the volume, and are under great obligations for the copy before us.

"*The Transactions of the American Medical Association.* Instituted 1847. Vol. XII. Philadelphia : Blanchard & Lea. 1859."

We are unusually favored. This is the first time that the *New Orleans Medical News and Hospital Gazette* has been favored with a volume of these transactions. They have been noticed before in our pages, but not as the property of the journal. We suppose we must say—thank ye, with all our heart! The volume before us is not by any means as large as some that have been issued, but its pages are full of interesting matter, and, altogether, we think the high character of the body whence it emanates is well sustained. We have ever been a warm advocate of the American Medical Association, and look with the highest interest on everything connected with it.

" *On Criminal Abortion in America.* By HORATIO R. STORER, M. D., of Boston, member of the American Medical Association. Philadelphia: J. B. Lippincott & Co. 1860."

This pamplet contains a collection of papers which have appeared in the *North American Medico-Chirurgical Review* from January to November, 1859, and is replete with interesting matter in relation to a subject wholly neglected in this country. Not a quarter of a mile from us dwells an old woman whose wages ought truly to be the wages of sin. And she is only one of a long list, we fear, whose dark deeds daily disgrace human nature, and heap suffering on their victims. Will the law ever reach them?

INDEX AND TITLE PAGE FOR VOL. 6.—In this number will be found the index and title page for Vol. 6, which are of value to all who intend to bind the journal. A glance at the index will show what a variety of valuable matter is contained in a single volume of our journal.

EXCERPTA.

CASE OF PHANTOM TUMOR.—*Under the care of* MR. SPENCER WELLS. From notes by Mr. Phillips, House-Surgeon.—F. M., aged 22, a well-made, fresh colored, rather fat, unmarried woman, was sent from the country to Mr. Spencer Wells as suffering under ovarian tumor, and as a fit subject for ovariotomy. She was admitted, June 7, 1859.

She stated that she had been in good health until two years ago; that since that time she had been obliged to give up all work, and that lately she had become thinner. She attributed the commencement of her illness to having received several severe kicks about the vulva and inner part of the thighs about a year before she had to give up work. She said that the kicks were followed by great swelling and pain, and afterwards by escape of blood, both fluid and in clots, by rectum and vagina; that there was a recurrence of this hæmorrhage several times during the year, and that the abdomen began to enlarge, and had continued to increase gradually up to the present time. She had undergone a great variety of treatment. She says the catamenia recur with only nine days' interval between the cessation of one and the commencement of the next period ; that many clots come away ; and that she suffers great pain in the back and loins for three days at least before the period, and for three days after it.

Present State.—Before examining the abdomen of this patient, and judging merely from her good color, plumpness, and rather hysterical excitable manner, Mr. Wells at once expressed his belief that a very evident enlargement, visible through the dress, and giving her the appearance of a woman at the end of pregnancy, was not owing to ovarian disease. On uncovering the abdomen the nature of the case was instantly apparent. There was precisely that contraction of the false ribs, and the bow-like bulging or arching forwards of the recti from some four inches above the umbilicus down to the symphisis pubis, so well described Dr. O'Ferrall, which is so very characteristic of these cases.

She complained of great pain on pressure (even very slight pressure) on any part of the abdomen. The parietes were furnished with a thick layer of fat, so that the resonance on percussion was not tympanitic anywhere. The uterus was found to be in the normal state, but she complained that the examination was very painful, owing to tenderness of the vagina.

June 9. Some medical visitors in the wards to-day being doubtful as to the nature of the tumor, and the accuracy of the diagnosis, Mr. Wells showed that as she was gradually brought under the influence of chloroform the abdominal tumor slowly but completely disappeared, the arched recti falling backwards, the diaphragm rising upwards, until, when she was completely narcotised, there was not the slightest appearance of any tumor, and the abdomen was perfectly soft and flaccid. It was curious also, to observe, that as she recovered from the effects of the chloroform the recti recovered their tension, the diaphragm descended, and the tumor reäppeared before she was completely awake. This was observed on more than one occasion when chloroform was used as a clinical demonstration of the case. It had been noticed that when she was asleep she lay flat down in bed, though when she was awake she wanted to be propped up to relieve dyspnœa.

The medical treatment consisted of assafœtida and valerian. Under this, and some good-humored ridicule, she rapidly improved, and left the hospital on the 25th, going to the very brother she *said* had kicked her so brutally.

On the Normal Hypertrophy of the Heart During Pregnancy—By M. Larcher.—The point the author here wishes to bring under the notice of the profession, he has had ample means of investigating at the Paris Maternité, for his investigations have been extended to 130 pregnant women, the great bulk of whom succumbed to puerperal fever—no lesion having preceded or given rise to the condition of the heart observed in them. The conclusion he comes to is, that the *heart is normally in a state of hypertrophy during gestation*. The walls of the left ventricle become increased by at least from a fourth to a third in thickness, its texture being also more firm and its color more bright—the right ventricle and the auricles retaining their normal thickness. These observations, made by M. Larcher, date back some thirty years, and have been confirmed by subsequent ones, made with great exactitude, by M. Ducrest, upon 100 other women: but why this paper has been so long in being published no explanation is given.

Within certain limits this condition of things may co-exist with the maintenance of health; but it none the less may be taken to express a predisposition to congestions and hæmorrhages. If, as the general rule, the hypertrophy gradually disappears after parturition, it may be otherwise in exceptional instances, especially where the recurrence of pregnancy has been frequent, and with short intervals. Is this not a cause of the varied lesions of the circulatory apparatus so commonly met with in women who have borne many children, either at too premature an epoch, at too brief intervals, or during an unfavorable condition of health? There is every reason, too, to believe that the bronchitis, which is so common during pregnancy, derives much of its character of persistency from this condition of the heart. Again, may we not attribute to this the greater danger of pneumonia when developed in pregnant women, and the frequency with which abortion then occurs? The various forms of hæmorrhage met with in pregnancy, as epistaxis, hæmoptysis, metrorrhagia, and apoplexy, are likewise predisposed to by this hypertrophy, normal though it be. Although pregnancy may, in the majority of cases, suspend or render slower the progress of pulmonary consumption, the progress of this affection becomes accelerated after delivery, and the still hypertrophied heart increases the perturbation of the respiratory apparatus.—*Archives Générales,* tome xiii. pp. 291–306.

Laennec inoculated himself with tuberculous matter, and Alibert and Biett inoculated themselves with cancerous matter; and all the three concluded, from the absence of any local results, that these morbid products were not inoculable. It is a curious fact, nevertheless, that Laennec should have died phthisical; and Alibert and Biett of carcinomatous affections.

Swallows' nests have long been objects of commerce amongst the people of Eastern countries, who consider them as nutritive and aphrodisiac. The weight of these nests annually exported from the great Indian Archipelago, is reckoned at about 242,000 ℔s.—the value being about 150 francs per ℔. for the first quality, 100 francs for the second quality, and 70 francs for the third. These nests are also sold in Paris in small quantities at about 6½ francs per nest weighing 8 grammes (two drachms). The researches of M. Payen show that a glutinous and alimentary substance forms generally the greatest part of these nests, and is a peculiar secretion nitrogenous and analogous to animal mucus, admitting sulphur into its composition, without any organization, swelling under the action of cold and especially of hot water, which dissolves the greater part, and is incapable of producing a coagulable solution when cold. M. Payen proposes to call this matter "cubilose" (cubiles).

A CASE OF RETROFLEXION OF THE GRAVID UTERUS DURING LABOR AT TERM.—The patient was pregnant for the first time, and had been in labor for several hours when Dr. Oldham saw her. On examination, the fundus uteri, with the head of the child, were found filling the pelvis; the os uteri drawn up above the pelvic brim, and reached with the utmost difficulty. The condition had apparently existed from the beginning of pregnancy. By combined external and internal manipulation the breech was brought down, and the fundus pushed up. Delivery was then effected; the child was dead. The mother did well. The author remarked on the facts—1st, That the full time had been reached, 2d, That the symptoms were not such as to excite attention previously; and 3d, The possibility of replacement at this late period. In answer to a question put by Dr. Graily Hewitt, the author stated that the patient, when formerly under his care and single, had, he believed, been the subject of retroflexion. (From a paper read before the Obstetrical Society of London, by Dr. H. Oldham.)—*Medical Times and Gazette.*

SLOUGHING OF THE FŒTAL SCALP AS A RESULT OF TEDIOUS LABOR.—The author related a case under the care of a midwife, in which the head had been impacted for about forty-eight hours in the pelvis, in a first labor. Eight days after delivery the child died. On the third day, the back of the head was much inflamed; later the scalp assumed a darker color, and the child gradually sank. A slough, of the size of a shilling, had separated, leaving a wound which extended nearly to the bone, over the occipital protuberance, and there was extensive ecchymosis around almost to the ear on each side, and the pericranium was in part separated from the bones. The sloughing in question resulted, in the author's belief, from the long impaction of the head in the pelvis. (From a paper read before the Obstetrical Society of London, by Dr. W. O. Priestly.)—*Medical Times and Gazette.*

ON THE USE OF THE PREPARATIONS OF LARCH BARK IN PULMONARY HÆMORRHAGE, ETC. *By Owen Daly, M. D.* Physician to the Hull General Infirmary.—My attention was first directed to the preparations of larch bark by two papers which were published in the *Dublin Hospital Gazette.* The first a communication from Dr. Moore, read before the Association of the College of Physicians, and published in the *Gazette* for April 15, 1858. The second, a paper by Dr. Hardy, physician to the Hospital for Diseases of Children, Dublin, "On the Treatment of Purpura Hæmorrhagica," by the administration of the tincture of larch bark, which appeared in the same journal for January 15, 1859. As notices of these papers have appeared in the half yearly abstracts, a summary of their contents will be quite sufficient for my present purpose. Dr. Moore states, "The therapeutical properties of the larch bark have been recently introduced to the profession by Dr. Frizell, of Dublin, who, having found a decoction of the inner bark of the 'Pinus Larix' very efficacious in his own person, thought it worthy of minute analyzation, and accordingly placed it in the hands of Dr. Aldridge, by whom it was found to contain, among other constituents, starch, gum, resin, and tannin." We are informed by the same writer that "Dr. George A. Kennedy has employed the extract of larch bark, and found it very efficacious in arresting epistaxis and intestinal hæmorrhage in a young man laboring under typhus fever." He has also prescribed it with much benefit in cases of bronchitis, with profuse expectoration, setting in during convalescence from fever. Dr. Hugh Carmichael and Dr. Moore have also employed the extract with great advantage in cases of profuse expectoration streaked with blood, and Mr. Hardy relates four cases of purpura hæmorrhagica treated by the tincture of larch; the most complete success attended the administration of the medicine. Having, at the time these latter cases were published, an out-patient at the infirmary suffering from pulmonary hæmorrhage, for whom I had, without the slightest benefit, prescribed all the usual styptics, I resolved to prescribe the tincture of bark. The patient was a female, aged 32, a widow, in an advanced stage of consumption. She complained of great difficulty in breathing, of oppression at her chest, and of a constant cough, attended with expectoration of blood. The tincture of larch was ordered in twenty drop doses every third hour in a little water; the relief was immediate; at the end of a week the hæmoptysis was entirely arrested; and her other symptoms were so much mitigated that she soon ceased to attend at the infirmary.

The styptic properties of the larch bark had, in this case, so far exceeded my expectations that I thought it deserving of a more extended trial, and up to the present time I have prescribed it in fifteen cases of pulmonary hæmorrhage. The cases have not been selected—some have been cases of active and severe hæmoptysis, others of a passive and more chronic character. I have also employed it one very severe case of epistaxis, and in a case of chronic cystisis, and with the exception of this latter case, in every instance with the most satisfactory results.

In the first week of last August I had five cases of pulmonary hæmorrhage under treatment at the same time—in two of these cases the usual styptics had been first employed, and a fair trial given to them before using the tincture of larch. I shall briefly relate these two cases, and the case of epistaxis.

Case 1. On the 3d of August I was asked to visit an unmarried lady, aged 25, who had been suffering for several days from passive pulmonary hæmorrhage; she had hurried respiration and frequent cough, attended with expectoration of blood. She had had hæmoptysis on two previous occasions; both lungs were diseased, the left extensively, the disease having advanced to the formation of pulmonary excavations. The finger ends were very much clubbed. Lead and opium were first prescribed, afterwards sulphuric acid; finding, however, after persevering in the use of each for several days, that the hæmoptysis still continued without any abatement, and that she was becoming weaker, the tincture of larch was substituted for the acid, and was given in half drachm doses every third hour. Two days after, the hæmoptysis had almost ceased, the sputa being only occasionally tinged with blood. The tincture was omitted for a few days on two occasions, and on each the expectoration became slightly tinged with blood; which, on the medicine being resumed, soon subsided. Latterly she has taken the tincture along with the infusion of cinchona.

Case 2. The following case I saw in consultation with my friend Mr. Dix, on the 31st of July. The patient was a married man, aged 28; active hæmorrhage had existed for a week. The blood coughed up was pure and unmixed. The hæmoptysis occurring every day or every other day, sometimes twice in the day and on one occasion three times, but never lasting for more than a few minutes at a time; on one occasion at least four ounces of pure blood were coughed up. The constitutional disturbance was very slight, the pulse rarely exceeding eighty; the cough was very trifling, more—to use his own expression—a "piffing" than a cough. The hæmorrhage was always preceded by a "spongy feeling" referred to a particular spot in the right side of the chest, whence the effusion evidently proceeded. In this case an excellent opportunity was afforded for testing the virtues of the tincture of larch as a styptic, inasmuch as previous to its employment lead and opium, gallic acid, the mineral acids and turpentine, had all been administered, and each persevered in for two or three days without giving any relief. On the 4th of August, the tincture of larch was prescribed in drachm doses every two or three hours, given in water. The result was most satisfactory. The hæmorrhage, after the administration of a few doses, was completely arrested, and although nearly four months have elapsed, no return of the bleeding has taken place. The dose was gradually diminished, and after a time quinine was added to the prescription.

Case 3. The last case I propose relating, is one of severe epistaxis occurring in a girl, aged 19. She stated that for several weeks past she had suffered from profuse bleeding from the nose, generally commencing in the evening, and on more than one occasion she had become quite faint from loss of blood. The bleeding was not vicarious, as she had menstruated quite regularly; her appearance was anæmic and indicative of great loss of blood. Steel and quinine in combination with sulphuric acid were prescribed and taken for a fortnight without the least benefit. The tincture of larch was therefore substituted in half-drachm doses every fourth hour. The bleeding was completely arrested at the end of a week; she, however, continued to take the tincture in infusion of cinchona for some weeks longer, and when last seen, on the 10th of September, was very much improved in her general health. It would be not only tedious, but unnecessary, to take up more time by a relation of further cases; the refrain in each would be the same, an immediate and striking improvement in the patient's condition, the hæmoptysis in every instance yielding to the medicine, in some cases after a few doses; in others after a more prolonged exhibition.

To conclude: Judging from the results of my own experience, I believe the tincture of larch will be found to be a most valuable agent in arresting and restraining pulmonary hæmorrhage. It possesses powerful astringent properties, combined with the styptic and slightly stimulating qualities of a terebinthinate, a rare combination, and one which appears to me to present all the requisites for a perfect styptic. By virtue of these properties, it acts as a mild tonic, improving and strengthening the digestive organs, while it does not interfere with the healthy and natural action of the bowels. Further, it is a palatable and pleasant medicine, having an agreeable balsamic "*pinic*" flavor, which is no slight recommendation in medicines of this class, especially when their continued exhibition must be persevered in for a lengthened period.

P. S.—I wish to add that I have seen several samples of the tincture of larch; that which I have used is scarcely altered when added to water, which, I believe, is the best criterion of its goodness and genuiness.

ON SOME OF THE ACCIDENTS PRODUCED BY THE DEVELOPMENT OF THE WISDOM-TEETH—*By M. Robert.*—The last four molars, vulgarly termed "wisdom-teeth," frequently cause, by reason of their slow development, various accidents which the treatises on surgery pass by almost without notice. An interesting and useful monograph might be written upon the subject.

These teeth are short and broad, and have short and straight fangs. They seem to remain behind the others, both in regard to their dimensions and the period of their apparition; so that at first sight, these teeth, which seem to have, so to say, undergone a commencing atrophy, might be expected to make their appearance without inducing irritation. But there are various circumstances which may render this difficult or even dangerous. Thus, it often happens that at the period of the evolution of the large molar it is found to have undergone deviation. As it is always cut at a late period, the other teeth, situated in front, compress its follicle, and distort and thrust back its alveolus. The tooth is thus often found deviating in front or behind, within or outwards. So great is the deviation that the alveolus is occasionally found hollowed out in the ramus of the jaw, the tooth having undergone such a reversion that its crown abuts directly against that of the second great molar. It is easy to see that the eccentric movement executed by the wisdom-tooth at the moment of its evolution, may become, as regards the neighboring teeth, the jaw, mouth, gums, or even itself, the source of various more or less serious accidents, such as osteitis, periostitis necrosis, inflammation of the soft parts, etc. This will be easily understood, if we consider the enormous power exerted by the tooth, the effects of which cannot be better compared than to those exerted by water, which, infiltrated into the crevices of rocks, violently separates their fragments, on expanding during congelation.

To these accidents of an inflammatory nature must be added another, which is hardly ever absent, and which often exists alone during a variable period, viz: the pains that sometimes last for months or years, and depend solely upon the development of the wisdom-tooth. This persistent pain is a nearly certain sign of chronic inflammation caused by obstructed evolution; but sometimes this phlegmasia, under the influence of some slight appreciable cause, or sometimes without any appreciable cause at all, may become transformed into accute inflammation, giving rise to various serious affections of the hard or soft parts as necrosis, periostitis, abscess, etc. Abscess may form either at the exterior of the jaw, or towards the mouth, whence the pus detaching the muscles and aponeuroses, may descend to the neck. In a case of Bérard's, the pus of an abscess which had formed in the mouth descended to the subclavicular region, constituting a true migratory abscess, from the effects of which the patient succumbed. Sometimes it is on the side of the throat that the inflammatory symptoms are manifested, and then the enlarged tonsils may have to be excised. In other cases it is towards the velum or the uvula that the inflammation is directed. Thus, an instance occurred to the author in which this was the case, and the hypertrophied uvula, hanging upon the base of the tongue, gave rise to anorexia and vomiting, and other symptoms, which during several months gave rise to the belief in an affection of the stomach. They arose, however, from the inflammation excited by evolution of a wisdom-tooth; and when analogous symptoms are present, at an age in which such evolution takes place, its possibility should always be borne in mind.

These observations were suggested to M. Robert by the presence in his wards of three persons in whom the development of the wisdom-tooth had given rise to various accidents. One of these was a delicate youth of 22, who had suffered from severe pains in the mouth during several weeks. In the furrow between the cheek and the anterior border of the ascending ramus was a vast and very painful ulcerated surface, covered with a whitish deposit; and lower down, the gum behind the third molar was likewise painful and swollen. The ulceration had been caused and kept up by the swelling of the gum, which itself depended upon the development of the wisdom-tooth. It was proposed to modify the condition of the ulcer by means of fuming nitric acid, and to freely excise the gum over the tooth. In the second case, a woman, aged 22 or 23, had suffered severe pains at the angle of the jaw during two years, and had every now and then inflammation and abscess in the vicinity. The gum had been incised with temporary relief, and now, after a severe attack of inflammation had been subdued, the tooth was found to be partially through, the gum which covered the remainder being ulcerated. This was excised, and the symptoms all subsided. In the third case, a robust man, aged 32, had suffered from his mouth, at the point corresponding to the last molar, during two years. Abscess, followed by an obstinate fistulous opening, occurred; but as the fistula opened near the chin, and all the teeth were sound, even an experienced dentist had not suspected the true cause. Another dentist, recognizing the nature of the case, drew the second molar, in order to give room for this new one, but without avail. The patient then came to M. Robert, who at once recognized that he had a dental fistula. These fistulæ have, in fact, their peculiarities, being slightly depressed, with the skin around them plaited or wrinkled, and when lying on the lower jaw frequently adhering to the bone. The fistula was traced back with a probe to the tooth, and the latter having been extracted, recovery soon took place.—*Gazette des Hop.* No. 8.

SYMPTOMS OF STONE—PASSAGE OF CALCULUS MATTER—DEATH—CALCULOUS CONCRETION LINING THE INTERIOR OF BLADDER. *Under the care of Mr. Wormald.*—A lad, aged 19, was sent up from the country to be placed under Mr. Wormald's care for what was supposed to be stone in the bladder. His symptoms had existed for about a year, and although somewhat emaciated he was not very ill. The condition of his urine was very peculiar, as it contained a deposit which much resembled mortar. He had repeatedly suffered from retention, which after lasting for a time, would be relieved on the expulsion of a softish mass of mortar-like concretion. Mr. Wormald attempted to introduce an instrument, but could not get it into the bladder. During the attempt a large quantity of glairy mucus escaped, and the discharge continued for some time afterwards. Mineral acids with opiates were prescribed, but the lad continued to suffer severely and failed in general health. On a subsequent occasion M. Wormald succeeded in introducing an instrument and ascertained the presence of a large quantity of calculous matter in the bladder. Wherever the point of the instrument was turned this concrete matter was felt, but no where did it give to the finger the impression of hardness and density usually afforded by a stone. A consultation was held on the lad's case, when Mr. Wormald stated that he was not inclined to submit the lad to lithotomy, believing that the whole interior of the bladder was diseased, and that there was no isolated calculus. This opinion, as the result proved, was a well founded one. The lad got gradually worse, and after the lapse of some weeks died.

At the autopsy the whole lining membrane of the bladder was found concealed by a thick crust of concretion, which looked exactly as if mortar had been plastered on. Both kidneys were tuberculous, and the urethra was extensively ulcerated, apparently from the irritation of impacted masses of calculous matter.—*Med. Times and Gaz., Nov.* 19, 1859.

TTE UGLIEST AND MOST OBSCURE OF SEA-WORMS.—Whether we are intruding or not in turning this stone, we must pay a fine for having done so, for there lies an animal as foul and monstrous to the eye as "hydra, gorgon, or chimæra dire," and yet so wondrously fitted to its work that we must needs endure, for our own instruction, to handle and to look at it. Its name, if you wish for it, is Nemertes, probably N. Borlasii, a worm of very "low" organization, though well fitted enough for its own work. You see it? That black, shiny, knotted lump among the gravel, small enough to be taken up in a desert-spoon. Look now, as it is raised and its coils drawn out. Three feet—six—nine at least, with a capability of seemingly endless expansion; a shiny tape of living caoutchouc, some eighth of an inch in diameter, a dark chocolate black, with paler longitudinal lines. Is it alive? It hangs, helpless and motionless, a mere velvet string across the hand. Ask the neighboring annelids and the fry of the rock fishes, or put it into a vase at home and see. It lies motionless, trailing itself among the gravel; you cannot tell where it begins or ends; it may be a dead strip of sea-weed, *Himanthalia lorea*, perhaps, or *Chorda filum;* or even a tarred string. So thinks the little fish who plays over and over it till he touches at last what is too surely a head. In an instant a bell-shaped sucker mouth has fastened to his side. In another instant, from one lip, a concave double proboscis, just like a tapir's—another instance of the repetition of forms—has clasped him like a finger; and now begins the struggle, but in vain. He is being "played" with such a fishing-line as the skill of a Wilson or a Stoddart never could invent; a living line, with elasticity beyond that of the most delicate fly-rod, which follows every lunge, shortening and lengthening, slipping and twining around every piece of gravel and stem of sea-weed with a tiring drag, such as no Highland wrist or step could ever bring to bear on salmon or on trout. The victim is tired now, and slowly, and yet dexterously, his blind assailant is feeling and shifting along his side till he reaches one end of him; and then the black lips expand, and slowly and surely the curved finger begins packing him end foremost down into the gullet, where he sinks, inch by inch, till the swelling which marks his place is lost among the coils, and he is probably macerated to a pulp long before he has reached the opposite extremity of his cave of doom. Once safe down, the black murderer slowly contracts again into a knotted heap, and lies, like a boa with a stag inside him, motionless and blest.

WOOD'S OPERATION FOR THE RADICAL CURE OF INGUINAL HERNIA.—Mr. Wood brought forward to the notice of the gentlemen in the theatre, a boy on whom he had performed his operation for the radical cure of hernia fourteen days ago[*]. The patient was a boy, aged 15, and had been ruptured for nine months. There was scarcely any difference between the two sides to be seen; but, on examination, the tissues about the rings could be plainly felt, like a hardened mass, completely preventing any escape of intestines. The patient had recovered without any drawback, and had now no pain or uneasiness, not even on jumping, etc. On account of the patient's restless habits, Mr. Wood considered it wise to apply a truss as a precautionary measure. He stated that this was the fourteenth case in which he had now performed the operation, and in all with success. In one only was there any permanent drawback. In this case variocele had followed, but disappeared again after a short time.—*Med. Times and Gaz., Nov.* 5, 1859.

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[*] For an account of Mr. Wood's mode of operating, see Med. Times and Gazette, June 25, 1859.

INJECTION OF THE SULPHATE OF ATROPINE IN THE TRACK OF THE PNEUMOGASTRIC NERVE IN ASTHMA.—The last Paris novelty consists in this treatment, by M. Courty, of the paroxysms of asthma in a case which had resisted a great variety of medicinal agents. He injected along the track of the pneumogastric nerve, on the inner side of the sterno-cleido-mastoïdeus and on a level with the thyroid cartilage six drops of a solution of the sulphate of atropine, which produced vertigo, dilatation of pupil and other symptoms of narcotization. Next day the injection was repeated on the other side, and thrown in more deeply, with the effect of producing still greater, though not alarming narcotism. A third injection, two days after the last, completed the treatment—the asthma having gradually diminished, and now, four days after the first injection, entirely ceased. The patient (a lady, aged 54) continued quite well two months after the treatment had been put into force.—*Moniteur des Sciences*, No. 37.

UTERINE INFLEXIONS—Rokitansky communicates some interesting observations on the flexions of the uterus. He says the vaginal portion of the uterus of a multipara and the connected vaginal roof is formed out of a duplicature, or folding-in of the vagina, in which the lower end of the uterus takes a part. So soon as the uterus has passed into the vagina, the vagina surrounds it like a ring, the appearance being like an intussusception. In front the doubling is shorter, and is attached by loose cellular tissue. On this account the anterior lip of the vaginal portion is thicker, the vaginal roof is more shallow, and the anterior lip is, besides, deeper. After repeated labors, the sharpness of these distinctions is lost. On section of the uteri of young persons, it is seen that the vagina, after it has formed the duplicature constituting the roof, is continued into the uterus. The mucous membrane of the vagina grows into the brawny mucous membrane of the cervix, the muscular layer follows it, and runs over the cervix into the fleshy mass of the uterus. A second, outer, loose, muscular longitudinal fibrous layer of the vagina goes, on the contrary, not into the duplicature, but passes over it outside, and spreads above over the mass of the body of the uterus. In more mature uteri, and in those which have been pregnant, there is interposed between the brawny mucous membrane of the cervix and that longitudinal muscular layer a richer mass of uterus, which, by so much the more that the duplicature is unfolded, ends more plainly in a point in the anterior lip of the vaginal portion. The shortening of the longitudinal muscular layer strengthens the inversion of the uterus in the vagina. At the anterior side of the uterus runs the round ligament, separating into two muscular bands; the upper run together at the fundus, the lower run together under an angle in the neighborhood of the os uteri internum; so that, from these four bands on the fore part of the body of the uterus, a kind of lozenge-shaped space is marked out. At the seat of union of the lower bands there strikes, in uteri of this description, a band about an inch broad in the form of a bow, the pillars of which run down close by the edge of the cervix to the vagina, and spread out on it. These fasciculi fix and especially enlarge the duplicatures. On the posterior wall of the uterus the ascending band is simply continued over the cervix into the vagina; or there proceed, also, from the end of this band, in the neighborhood of the os uteri internum, two strips of the form of a sharp bow to the vagina. The stiff, thick, strong mucous membrane of the cervix, and the remarkably thicker connective tissue on the posterior wall, does not terminate at the os uteri internum, but continues, becoming thinner, on to the body of the uterus. This stiff stratum forms the support of the mass of the body of the uterus, and the foundation of its normal upright position, and shares essentially in flexions.

Inflexion of the uterus forwards or backwards always falls in the region of the os uteri internum, where the stiff connective tissue mass is renovated, and appears as the submucous connective tissue of the mucous membrane of the uterus. Flexions of the cervix but seldom happen. The stratum of connective tissue is always found less thick, looser, thinner, and even wasted away. For this reason anteflexion is far more frequent and in lesser degrees, or it grows to infraction; retroflexion is less frequent, but oftener in extreme degree, and very seldom grows to infraction. Anteflexion, moreover, most commonly appears in the virgin uterus, or at least it is apparently in no relation with labor; retroflexion, on the contrary, hardly ever arises but after repeated labors (or abortions), and is in essential relation to this state.

Virchow sums up his researches on the flexions of the uterus as follows: He believes that anteflexions are more a mechanical than an organic phenomenon. 1. At the seat of infraction there is found no primary alteration of the tissue. 2. Simple relations of pressure, distinguished from actual tumors, cause no anteflexions, but mostly retroflexions. 3. The fillings of the bladder and rectum cause, as one can be convinced by experiment on the dead body, distinct changes of position of the uterus. 4. These changes of position are, in like manner, no longer possible when the body of the uterus, and especially its fundus, is fixed in a certain height and on a certain level; still more, one may be satisfied, by artificial filling of the bladder, that, in proportion to the distension of its walls, a stronger bowing, and even a true bending takes place. 5. In original shortening of a lateral ligament there is found in childhood only lateral dislocation and lateral inflection; in persons beyond puberty, anteflexions. 6. Anteflexions are more frequent in normal, retroflexions in pathological conditions of the uterine walls.

From the foregoing considerations, Virchow draws his therapeutical deductions: 1. In the history of flexions there is a period of simple predisposition, one of simple flexion, and one of flexion complicated with various inflammatory processes. 2. The predisposition is frequently given by partial forms of peritonitis, which appear with colicky attacks, and is apparently very diflcult to mitigate. 3. Long retention of the urine and of fæces favors the formation of flexions, especially at the time of menstruation, of child bearing, etc., and is therefore carefully to be avoided. 4. Enlargements of the uterus, especially when united with relaxation, quickly cause flexions, and the removal of these enlargements, *e. g.*, in chronic endometritis, may materially alleviate them; hence the antiphlogistic treatment of uterine catarrh, and most careful watching of the menstrual and puerperal processes are necessary. 5. A complete removal of anteflexion seems, in the highest degree, doubtful, whilst, in retroflexion, it may be expected. 6. When flexion is connected with consecutive processes, as endo- and perimetritis, a careful local treatment is necessary. Endometritis may by this means be removed; but perimetritis causes adhesions of the uterus, which the longer they endure the more they fix the flexion and hinder the improvement of position of the organ.

Virchow follows up his own researches on flexions of the uterus by some remarks on the views of Rokitansky, related above. The atrophy at the seat of infraction is, according to Virchow, not primary or essential, for in anteflexions of infantile and maiden subjects there is not the slightest alteration of the uterine wall to be found. First, menstruation, childbed, abortion, catarrh, commonly bring the changes. Of all things, flexions favor the conditions of atrophy and atomy; but in this respect further researches are wanted.

Further: the anatomical description of the uterus, as Rokitansky gives it, is not in all points correct; for example, the mucous membrane of the cervical canal cannot be called callous, for it is here relatively thin; although it is still thinner in the body, it is in the cervix very rich in cells, and more resembling a granulation-tissue than callous. The fibro-muscular tissue of the uterus is found as well in the body as in the neck; it contains more muscular fibres and vessels in the body, and more fibrous connective tissue in the neck. Towards the mucous membrane the muscular fibres in both places cease, and there is found a distinct, apparently thick, but in the normal state by no means thick, sub-mucous layer.

NARROW PELVIS; LARGE CHILD; NATURAL DELIVERY AFTER THIRTEEN HOURS; RENT OF THE LEFT TENTORIUM CEREBELLI AND OF THE SINUS TRANSVERSALIS; INTERMENINGEAL HÆMORRHAGE; MECONIUM IN THE AIR-PASSAGES: By *Dr. August Breisky*, Assistant in the Lying-in Clinic at Prague.—A primipara, aged twenty-nine, with a contraction of the pelvis, was in labor in the hospital; the fœtal heart was heard; the liquor amnii tinged with meconium; but still the heart was heard; the head-swelling was very large; the child was born apparently dead after strong labor. The heart and funis continued to pulsate, but all attempts at resuscitation were fruitless. *Dissection.*—Slight syanosis of the face and finger-ends; the head was lengthened in the direction of the diagonal diameter; under the external periosteum, in the course of the sagittal suture, were flat dark-red extravasations. In the arachnoid cavity, especially in the region of the left hemisphere and at the basis, was a very dark fluid extravasation; several ecchymoses on the tentorium of the right side; on the left side, near the falx, was a rent; the transverse sinus was opened. The brain was much infiltrated, and full of blood. The bronchi contained a thin, yellow, somewhat frothy mucous mixture. The lungs were small, deep-sunk against the spine; the edge of one lobe contained a little air, and gave out a little frothy fluid on cutting. The pulmonary vessels, the venæ cavæ, and heart cavities were filled with dark fluid blood. In the pericardium was a little serum; no ecchymosis. Kidneys without trace of uric acid infarction. Under the microscope the bronchial contents showed the yellow-colored elements of the meconium, some cholesterine crystals, and the epidermic cells of the vernix caseosa.

In his commentary on these cases, Dr. Breisky observes that the presence of liquor amnii in the air-passages, in the first case, was the effect of premature intra-uterine inspiratory effort, excited by the interruption of the placental circulation. We may also learn from this observation that the cause of the first respiration of new-born children consists in the breaking off of the placental circulation, which gives rise to the *besoin de respirer*. Connected with this is the indication always to tie the cord immediately after the birth of the child; this is the more urgently required in the case of apparently dead and weakly children, in order by suddenly cutting off the intra-uterine respiration to compel an inspiratory effort.

The etiology of the respiration in the remaining three cases in which there was no compression of the cord is not so clear; but here also the author, relying on Schwartz's experiments, maintains that it was produced by an interruption to the interchange of elements between the maternal and fœtal blood. He believes that the indraught of liquor amnii is facilitated in head presentations, where some liquor amnii is always ponded up behind the head, allowing freedom for the chest to expand; and he says he has found this not to be the case in breech-presentations, which allow the liquor amnii to run off.

THE ABOLITION OF CRANIOTOMY FROM OBSTETRIC PRACTICE: By *Dr. Tyler Smith*, Obstetric Physician to St. Mary's Hospital.—In this paper the author shows that craniotomy is resorted to in British practice about once in every 340 labors. The whole number of births in England and Wales exceed 600,000 per annum; and if we apply the proportion of 1 in 340 to these figures, we get a total of about 1,800 cases of craniotomy per annum. This is as though every year all the children born in London during rather more than one week were sacrificed; or as though all the children produced during the year in such a county as Westmoreland were born dead. The mortality to the mother from this operation is nearly one in five, in British practice, which would give in England and Wales a maternal mortality of between 300 and 400 per annum. Craniotomy is performed about twice as often in British as in French practice, and four times as often in this country as it is in Germany. It is an obvious fact that every improvement which has ever been made in obstetrics has tended to restrict and diminish the cases and conditions in which the performance of craniotomy has been resorted to. It is the author's object to show that, with the proper and scientific use of all the means at our command, it may be laid down as a general rule, that craniotomy should not be performed in the case of a living fœtus after the period of viability has been reached. It is certain that, up to the present time, the measures which are the alternatives of craniotomy have never been carried out in practice to their full and legitimate extent. Turning was the first great obstetric operation which checked the voluntary destruction of the fœtus during labor. The objections to turning which some obstepists entertain depend on an almost superstitious fear of the uterus—a fear mainly owing to ignorance of the nature of the organ, and of the laws under which it acts. The dread of introducing the hand into the uterus has prevailed almost universally. But, apart from the danger of infection, the hand of the accoucheur, properly guided can do no more harm in the uterus than any portion of the fœtus of equal bulk. Restrictions of the most absurd kind have been laid upon the operation, and it has come to be almost limited to arm presentations and cases of placenta prævia. On the continent, turning is the recognized practice in cases of difficulty, where the head is above the brim, beyond the reach of the forceps, when the os uteri is in such a state as to admit the hand, and when no serious distortion of the pelvis exists. The operation of turning in cases of moderate pelvic deformity was practised by Denman, but it was dealt with rather as an exception than a rule of practice, until the matter was taken up by Professor

Simpson. No unprejudiced person can read Dr. Simpson's papers on this subject without coming to the conclusion that turning may be performed in cases of moderate pelvic distortion at the full term, with comparative safety to the mother, and with a reasonable chance of safety to the child. It is also shown to be applicable to cases of greater deformity, in combination with the induction of premature delivery. Nothing has ever occurred in the history of turning which has so strongly tended to enlarge its usefulness as the introduction of anesthesia in obstetric practice. Under chloroform we can turn with comparative ease in cases of excessive sensibility of the os uteri and vagina, in arm cases in which the waters have been long expelled, and the uterus has closed upon the fœtus with spasmodic force. It renders turning practicable in cases of convulsions or maniacal excitement, and in all instances it makes the uterus comparatively quiescent, and thus averts the dangers depending on contraction and resistance during the operation. Turning is performed nearly three times as often in France and Germany as it is in this country. After turning, the next great step in opposition to craniotomy was the discovery of the forceps. Before the time of Chamberlain, whenever turning was impracticable, there was no resource in cases of difficulty except in craniotomy. But it may fairly be questioned whether the whole powers of this instrument have ever been fairly brought out, especially in this, the country in which it was produced. If we examine our standard works, we find more pains taken to show when this instrument is not to be used than when it may be. The cases in which the forceps may be used are those of moderate disproportion or distortion, whether the arrest is at the brim, in the cavity, or at the outlet of the pelvis; cases of arrest from failure of the labor pains, without any morbid condition of the parturient canal;

cases of convulsions in which the os uteri is dilated, and the head sufficiently low to be within reach of the instrument; cases of occipito-posterior presentation, not otherwise admitting of rectification, and face presentations; cases of accidental hæmorrhage; and cases of rupture of the uterus, in which no great recession of the head has taken place. It should also be used at a comparatively early period in many of the cases which, if not assisted, run on to impaction from swelling of the fœtal head, and tumefaction of the soft parts of the mother. The outlet and middle straits of the pelvis are the limits within which the short forceps should be used; at the brim the long forceps is the proper instrument. The forceps is used more than twice as often in France and Germany as it is in this country. The last, and it may truly be said the greatest opponent of craniotomy, is the induction of premature labor. The largest single source of craniotomy is deformity of the pelvis. Now, it may be asserted, without the possibility of contradiction, that in this great mass of cases it would be right and practicable at once and forever to abolish craniotomy in the case of the living and viable fœtus. In all cases of known deformity, an examination should be made in the early or middle months of pregnancy, and the proper treatment of such cases should be the induction of abortion or of premature delivery. In cases of excessive distortion, where it would be altogether impossible for a viable fœtus to pass, abortion should be induced before the time of quickening. It would be quite impossible for intercourse and impregnation to take place in any case in which it would not also be possible to induce abortion with safety to the mother. In the very considerable number of cases of moderate distortion in which the diminished capacity impedes delivery at the full term, but would allow of the passage of a child at the seventh or eighth month, with the chance of living, the induction of premature labor is the only justifiable practice. Besides the great operations of turning, the forceps, and the induction of premature labor, there are other means by which, in special cases, the necessity of craniotomy may be superseded. One of the most simple is the rectification of occipito-posterior presentations. When the occiput descends towards the secrum in the third and fourth positions, instead of turning towards the right or left acetabula, great difficulty is produced, particularly in first labors, or when the head is large. Recorded cases of craniotomy show that the want of this rectification, which is generally possible with the hand, the lever or the forceps, often leads to perforation. Cases of hydrocephalus in the fœtus are among the most difficult to deal with in an attempt to abolish craniotomy; but here we have the proposal of Dr. Simpson to tap the hydrocephalic head, and in this way reduce it so as to allow of delivery without the destruction of the fœtus. In actual occlusion or insuperable rigidity of the os uteri, incision is a safer and better practice than craniotomy. While it is the object of the present paper to advocate the abolition of craniotomy in the case of the living and viable fœtus, there is undoubtedly a class of cases in which perforation may be practised beneficially—namely, in labors where the child has died during the course of parturition. No woman should be allowed to remain in difficult labor after the death of the child has been satisfactorily ascertained. Considering, then, the various means at our disposal in the way of preventing the necessity for craniotomy, the author unhesitatingly expresses his conviction that, as a rule of practice, craniotomy in the case of the living and viable fœtus should be abolished; and he believes that if all the resources of obstetrics in the way of prevention, management and alternative treatment were properly wielded, the necessity for the operation would not arise.—*Lancet.*

Personal Identity.—Many years ago, perhaps about the year 1799, there were two brothers of the name of Harp, roaming about the barrens of Kentucky, whose occupation seemed to be to commit atrocious murders, and in many instances apparently without any object, except, as the elder acknowledged, hatred of the human species. In consequence of these atrocities the Governor of the State offered a large reward for their capture. To avenge the murder of a Mrs. Stegul, a man of the name of Leiper raised a party, nnd set out in pursuit of the murderers. The elder Harp was arrested and killed, his head cut off and carried before a justice of the peace to claim the reward. The head was then stuck on a tree at the fork of the roads, which have ever since been known as Harp's Head Road. The younger brother escaped and joined a party on the Mississippi River, headed by a man of the name of Measure. They were river pirates and robbed boats going down the river, or parties ascending who might have money; pleasantly observing that these people took produce to market for them. During the absence of the gang young Harp cut off Measure's head, which he packed in clay for preservation, and carried it down the river to Natchez, where Gov. Claiborne had offered a reward of $1,000 for it. His claim was admitted, as Measure's features were well known, but unfortunately for him he was recognized by a man from Kentucky, and arrested and put on his trial.

There was a good deal of contradictory evidence. Mr. Poindexter, afterwards Governor, was the United States District Attorney, and informed the writer of this that, though everybody was satisfied that he was the man, yet there was not a sufficiency of clear evidence to legally convict, until, as he was about to give the case to the jury, for acquittal of the party, a stranger, from North Carolina, attracted by the crowd, made his appearance. He was raised in North Carolina, and knew the Harps when boys; but years had elapsed, and he could not certainly identify the man. But he stated that the younger Harp had *three toes growing together on one of his feet*, which, upon examination, proved to be the case with the prisoner, and he was convicted.—*Phil. North American.*

FAILURE OF HYPNOTISM—The excitement produced by the introduction of Dr. Braid's method of hypnotism into Paris, as a proceeding applicable to the operative purposes of surgery, is likely to end in the flattest evaporation, as we predicted. The successes have been less striking, and the failures more numerous, than we expected. Experiments have been made on a very large scale in nearly all the hospital establishments of Paris. It has been clearly proved that only women are affected, except in unusual instances. As regards the male sex, the question is judged. With females the results are variable, imperfect, and practically useless to surgery. A well arranged series of trials was carried out by Drs. Demarquay and Giraud Teulon, in fifteen cases. The temperament of the patients and the results, are very impartially related. It is worth while to analyze these cases; the patients were all females, the majority having (cancerous) affection of the uterus. The result was, in No. 1, catalepsy without anæsthesia; 2, no results; 3, no results; 4, hysteria, with exaggeration of the sensibility; 5, muscular relaxation, sensibility still continuing; 6, no results; 7, no results; 8, anæsthesia; 9 and 10, no results; 11, slight bewilderment—"experienced during the trial voluptuous sensations;" 12 and 13, no results; 14, fell asleep—awoke and cried out when pricked with a pin; 15, anæsthesia. So that, out of 15 females, there were two in whom anæsthesia was produced. But this is neither profound nor lasting. A noise, or the movement of the object before the eye, is sufficient to interrupt the process. Meantime, it is evident that all the forms of abnormality which may be induced by thus forcing the vision are not thoroughly known. Enough is seen to demonstrate that the proceeding can have no surgical value, and that the results attributed to "mesmerism," "animal magnetism," "electro-biology," and the like, are capable of imitation by these means. This was already shown by Dr. Braid's experiments; but, singularly enough, it has been customary to draw very opposite conclusions from his experience. While interest is still felt in the inquiry in Paris, it is very desirable that the physiological relations of the enforced action of the eyes on corresponding parts of the brain should be investigated. The whole series of phenomena incidental to catalepsy, epilepsy, hysteria, and induced coma, may be found to be connected with disturbance of the circulation at the base of the encephalon, which is, for the most part, so carefully guarded against by the anatomical arrangements of the beautiful circle of arteries to which Willis has given his name. Meanwhile, the comparative danger of inducing these forms of disease, or of administering chloroform, must be carefully weighed by experiments.

HOMŒOPATHY NOT RECOGNIZED IN EUROPE.—The following correspondence, which sufficiently explains itself, has been furnished us by Dr. E. F. Smith, the efficient health officer of this city:

Messrs. Editors—It will be remembered by the readers of your Journal, that in May, 1858, the Homœpaths of this city petitioned the City Council of St. Louis to permit a portion of the City Hospital to be set apart for the alleged purpose of testing the so-called merit of Homœopathy; the real incentive, as we know, of their petition being, that its allowance might magnify the humbug into some professional consequence. Among the arguments they used in support of their petition, was the assertion that Homœopathy was sanctioned by the crowned heads and nobility of Europe, and that European governments recognized it by permitting its teaching and practice in their hospitals. The falsity of this assertion was known to every one conversant with the state of medical matters in Europe; but that it might receive its emphatic contradiction from an official source, I addressed myself to the American Ministers resident at Vienna and Berlin, and to the Minister of Public Instruction of France, asking from the proper department of these governments a reply to the following questions:

1st. Is the teaching of Homœopathy authorized or permitted in any of the Colleges or Institutions of your government?

2d. Is the practicé of Homœopathy permitted in any of the public hospitals of your Government?

3d. Is the private practice of Homœopathy sanctioned in your government?

In reply, I received the following letters, which, as they will prove of interest to the profession, I give you for publication:

LEGATION OF THE UNITED STATES,
VIENNA, July 19, 1858.

Sir—In the absence of Mr. H. R. Jackson, Minister Resident of the United States at Vienna, I have the honor, in compliance with the request contained in your letter of May 14th, to transmit the following translation of a communication just received from the Austrian Minister of Foreign Affairs:

VIENNA, July 10th, 1858.

In his esteemed note of the 21st ultimo, the Minister Resident of the United States, Mr. Jackson, requested the mediation of the Ministry of Foreign Affairs to obtain a declaration from competent authority on these points:

1st. Is the teaching of Homœopathy authorized or permitted in any of the Colleges or Institutions of Austria?

2d. Is the practice of Homœopathy permitted in any of the public hospitals of Austria?

3d. Is the private practice of Homœopathy sanctioned in Austria?

The Imperial Ministry of the Interior, which was applied to, as it has charge of all medical and sanitary affairs in the Empire, has returned answer—to 1st, that in Austria, Homœopathy is taught not by publicly appointed professors, but only by private teachers—to 2d, that this mode of cure is practised, not in public hospitals, but only in cloister, criminal, and private hospitals—to 3d, that the private practice of Homœopathy is permitted to every physician who has a diploma.

In the hope that the above will answer the wishes of the Hon. Minister Resident, the undersigned renews to him the assurance of his perfect consideration.

[Signed] COUNT BUOL,
Minister of Foreign Affairs.

As these declarations come from the highest official source, I presume they will satisfy the object of your inquiries.

Very respectfully, your obedient servant,
G. W. LIPPITT, *Secretary of Legation.*

To E. F. SMITH, M. D., St. Louis.

SIR: In reply to your letter of the 5th inst., in which your Excellency asks information upon the instruction and practice of homœopathy, I have the honor to inform your Excellency that homœopathy in Prussia is not admitted into the Universities nor Hospitals, nor other public institutions. Physicians are allowed, if they please, to exercise homœopathy in private practice.

Returning to your Excellency the letter of Dr. E. F. Smith, of St. Louis, I beg you to accept the opinions of my very high consideration.

Berlin, April 15, 1858.

[Signed] RAUMER.

To his Excellency, Mr. J. A. WRIGHT, Envoy Extraordinary and Minister Plenipotentiary of the United States.

PARIS, April 22, 1858.

SIR: I take cognizance of the letter which you have written me, demanding of me information upon the subject of the teaching of homœopathy in the faculty of medicine of the Empire.

The exercise of homœopathy is not legally authorized in France. My administration has not authorized me to exercise any measure having reference to the teaching of homœopathy.

Receive, Sir, the assurance. etc.,

ROLAND, *the Minister of Public Instruction.*

To E. F. SMITH, St. Louis Mo.

These letters speak for themselves: coming as they do from the highest official sources of Austria, Prussia, and France, they palpably show that this humbug not only meets with no favor from the scientific departments of those governments, but is completely discountenanced by them.

Respectfully, E. F. SMITH.

NEW ORLEANS

Medical News and Hospital Gazette.

VOL. VII. APRIL, 1860. NO. 2.

CLINICAL REPORT OF CASES

OBSERVED AT THE CHARITY HOSPITAL.

By Austin Flint, M. D., Prof. of Clin. Med., etc., N. O. School of Medicine.

The Physical Signs of Pulmonary Cavities.—A German, aged about 25, was admitted December, 1859, presenting the well-marked symptoms and signs of advanced pulmonary tuberculosis. Among other signs, the *cavernous respiration* and the *cavernous whisper* existed at the summit of the chest on the right side. This case served to illustrate these signs to my private classes for practical instruction in physical exploration of the chest. Death occurred three weeks after his admission.

On examination after death, the upper lobe was very firmly adherent to the chest, requiring to be separated by the scalpel. The intermediate tissue was one-fourth of an inch in thickness and of cartilaginous firmness. At the upper part of this lobe, corresponding to the situation in which the cavernous signs had been demonstrated during life, was an anfractuous cavity as large as a hen's egg, which was traversed by a bridge of condensed pulmonary tissue. The entire lower lobe of this lung was consolidated by tuberculous deposit. Over this lobe, during life the *bronchial respiration* and the *bronchial whisper* with *bronchophony* had existed, placing in strong relief the cavernous signs existing over the upper lobe. The greater part of the upper lobe of the left lung was also solidified by tubercle, and here the physical signs of solidification had been determined during life.

I have given the foregoing facts relating to one of the many cases of pulmonary tuberculosis under observation during the present session, merely as a text for some remarks on the *cavernous signs of pulmonary cavities*. In this case the existence and the precise situation of a cavity, as determined by physical exploration, were verified at the autopsy. Other instances might be cited, but this single case will suffice, by way of introduction to the subject, to which the remainder of the present article will be devoted.

Misapprehension with respect to the physical evidence of cavities, is perhaps more common than as regards any other subject relating to auscultation. Errors of observation, in consequence, are frequent. It is often said of persons affected with phthisis that they have the cavernous signs, and the auscultator is asked whether, in examining these cases he discovers cavities, as if these signs were well understood and the existence of cavities determined practically without difficulty. The truth is, each of these views is erroneous—the signs are not generally well understood, and cavities are by no means always detected with facility. In fact, misapprehension with respect to these signs may be inferred, whenever a practitioner implies that cavities are to be discovered, as a matter of course, provided they exist.

Laennec's description of cavernous breathing is to be ranked among the few portions of his great work which betray a confused idea of that which he undertakes to describe. He failed to indicate it clearly as a distinct physical sign. Of this fact independent observers who came after him were convinced, and the existence of such a sign was denied by some: for example, by Skoda, who considers the cavernous and bronchial breathing as identical. Some writers who have succeeded no better than Laennec, in describing a modification of breathing sound as a cavernous sign, have yet attempted to lay down rules for localizing cavities.

These rules relate to circumstances attendant on a respiratory sound, not vesicular or normal, but which is not distinguished from the bronchial respiration. As an illustration of the futility of such an attempt, let the reader consult Dr. Gerhard's Treatise on this subject, as written twenty years ago, and reproduced without any material alteration in the recent edition. Barth and Roger, and Walshe made an approach toward the description of a cavernous respiration; but its distinctive characters as a physical sign were not clearly defined by these excellent observers. By a large proportion of those who practice physical exploration to a greater or less extent, bronchial breathing is habitually confounded with the cavernous. But bronchial breathing is a definite, invariable, representative sign of solidified lung. It is in no manner convertible into cavernous breathing, nor can it possibly, under any circumstances, signify the existence of cavities.

*It is now eight years since the writer of these remarks invited the attention of clinical observers to certain cha-

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* Prize Essay, Trans. Am. Med. Association, 1852.

racters of cavernous respiration based mainly on variations in pitch as compared with the bronchial respiration.

These characters were stated to consist in an inspiratory sound, devoid of the vesicular quality, and lower in pitch than the inspiratory sound of bronchial breathing, and in an expiratory sound, lower in pitch than the inspiratory; while in the bronchial respiration, the expiratory is higher in pitch than the inspiratory sound. These points of distinction were not given at that time with positive assurance, because the opportunities for verification by autopsical examination, had not been numerous. *In a subsequent publication, the statement of these distinctive characters was reiterated, but still with reserve, as the number of verified observations was not yet large. During the last four years, however, the accumulation of facts, in the mind of the writer, leaves no room for farther distrust, and of the correctness of the above description he has no doubt. It is not perhaps, too much to claim with respect to a practical point like this, that a conclusion derived from clinical study for such a period, merits sufficient attention to have its correctness fairly tested by the observations of others. More than this, the writer has no disposition to ask.

Assuming that cavernous respiration does exist as a distinct physical sign, and that its distinctive traits are those just mentioned, its practical value is less than the reader at first might imagine. It is not readily discovered in all cases in which a cavity even of considerable size has formed It is only under certain circumstances, by no means constant, that the sign is produced. The cavity

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*Physical exploration and the diagnosis of diseases affecting the respirative system, 1856.

must not only be of sufficient size, but it must be situated near the superficies of the lung; it must be free from liquid contents; it must have flaccid walls; it must communicate freely with the bronchial tubes, and the orifices must not be obstructed, else the sign will fail to be discovered. Moreover, since tuberculous cavities are often surrounded by solidified lung, the bronchial respiration due to the latter, overshadows, or as it were, drowns the cavernous, the latter rarely being loud, and never acquiring that degree of intensity which the bronchial respiration often presents. It is stated by Soda that a respiratory sound never emanates from a cavity resulting from a pneumonic abscess. In this statement he errs, as proved by a case under observation at the Charity Hospital during the present session, and which will be reported in a subsequent article. In this case well marked cavernous breathing existed, for a time, over a large area of the summit of the chest, developed after the sudden expectoration of a great quantity of pus in the course of pnuemonia, and at length disappearing when the evidence of cicatrization was afforded by the cessation of expectoration and great depression of the chest at the summit, within the limits of the abscess.

It is not, I trust, indelicate to say in this connection, that certain physical signs produced by the *whispered voice*, had not attracted attention prior to a publication just referred to.* The acute and frequently intense *souffle* caused by the whispered voice over solidified lung, is a sign, not only striking, but highly valuable in certain cases in which bronchial respiration and ordinary bronchophony are not strongly marked. I have called this sign *whispering bron-*

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*Physical exploration, etc., by the writer, 1856.

chophony, but a simpler and better term is the *bronchial whisper*. It exists in different persons, in a greater or less degree, at the summit of the chest over the large bronchial tubes in health, this may be called the *normal bronchial whisper*. A point relating to the latter possesses importance, and is not indicated in the writer's treatise on physical exploration, because it had not at that time been ascertained. This point is a normal disparity between the two sides of the chest as regards the bronchial whisper of health. On the right side it is more intense than on the left, and on the left side it is more acute or higher in pitch than on the right. This statement is based on an abundance of observations. These remarks are preliminary to an enunciation of the physical sign of a pulmonary cavity, derived from the whispered voice. The soufle or blowing sound over a cavity, as compared with that over solidified lung, is low in pitch. This low pitched sound constitutes, in certain cases, a well marked cavernous sign, especially when placed in strong relief by the bronchial whisper due to solidified lung surrounding an excavation. It may be marked when the cavernous respiration is not fully evolved. Its rationale is sufficiently intelligible, although, of course, its existence as a physical sign rests on clinical observation. What is the act with which words are whispered? It is neither more nor less than a strong expiratory act. For precisely the same reason, then, that the expiratory sound in bronchial respiration is more intense and higher in pitch than the inspiratory, we should have a tubular sound or souffle still more intense and equally high in pitch under the same physical conditions when the patient pronounces words in a whispered voice; and for precisely the same reason that the expiratory sound in cavernous respiration is lower in pitch than the inspiratory, and notably lower than the expiratory sound in the bronchial respiration, the cavernous whisper should be a low-pitched sound. The mechanism of the production of the expiratory and the whispered sound in the two cases are manifestly identical.*

Fearful that this digression in the course of my clinical reports may, if longer protracted, prove wearisome to many of the readers of the *Medical News and Hospital Gazette*, I will bring the present article to a close by a simple enumeration of the additional physical signs of pulmonary cavities.

1. Tympanitic resonance on percussion over a circumscribed space, at or near the summit of the chest. This resonance is not, in itself, positively diagnostic even when circumscribed. It is sometimes marked when solidified lung is situated over the larger bronchial tubes. Its significance is increased when it is found to be present only at certain times and at other times is replaced by marked dullness or flatness, which indicates that the cavity is filled with liquid. The existence of tympanitic resonance over a cavity, denotes that it has rigid walls.

2. Amphoric and the cracked metal varieties of tympanitic resonance, are scarcely more significant of cavities than when the resonance is simply tympanitic. These sounds are often produced by percussing over solidified lung, as in cases of pneumonia affecting the upper lobe. Cases under observation at the Hospital during the present session, have presented repeated illustrations of this fact.

3. If a cavity be near the superficies of the lung, the pleuritic surfaces over the cavity adherent, the intercostal spaces wide and the wall of the chest attenuated, bulging within a circumscribed space, is sometimes produced by

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*Under the circumstances in which amphoric respiration occurs, the whispering souffle may present a musical intonation, and then it may be distinguished as *amphoric whisper.*

the impulse of the air during acts of coughing. It has occurred to me in several instances to observe this appearance, which, when well marked, is a highly significant cavernous sign.

4. Gurgling, when well marked, i. e., distinguished from bronchial rales (with which it is often confounded), is distinctly a cavernous sign.

5. Pectoriloquy may possibly possess some value as a cavernous sign, but this is by no means certain. Its extreme infrequency (provided it be accurately distinguished from bronchophony, with which it is probably confounded by not a few persons who auscultate the chest) renders it of little practical value, whatever importance may belong to it as a sign of a cavity.

6. Metallic tinkling, metallic echo, amphoric respiration, and the Hippocratic succussion-sound, in some instances emanate from large pulmonary cavities. The importance of bearing this in mind, however, pertains to the liability to error in considering these phenomena, in such instances as signs of pneumo-hydrothorax.

New Orleans, March 5, 1860.

LABELS FOR SPECIMENS, WITH REMARKS.

By E. R. Mordecai, M. D., Mobile, Ala.

Messrs. Editors—It has occurred to me that a description of some of my specimens might be of interest, and answer the purpose of a report of the cases to which they belong; thus saving time and space, by rendering it unnecessary to enter into such details, respecting the mode of operation, or the course of treatment pursued, as may be supplied with sufficient accuracy through the imagination of any medical reader.

The following is a list, which I place at your disposal:

No. 1.—Preparation exhibiting two fistulous openings into the frontal sinuses of Harry, aged sixty-four years, servant of W. L. Waller, Esq., of this city.

The abnormal aperture on the right side, of large size and of two years' standing, was occasioned by an extension of the inflammation from the left sinus. The *left* sinus was the original seat of the inflammatory action which gave rise to the fistulæ. The opening into this cavity corresponds externally, with the groove for the trochlearis muscle, and, at the time of the subject's death, had existed for *sixteen* years, discharging constantly a purulent and muco-purulent matter. The mucous lining of the left antrum was thickened, softened, and otherwise altered by chronic inflammation—showing a tendency to inflame in the mucous membranes of the fossæ of the head and face. Until a brief period immediately preceding his death, the subject was active, industrious and intelligent.

Contrary to expectation, no unnatural communication existed between the cavities diseased, and *that* of the cranium.

Death from ramollessement of the superior and posterior surfaces of both hemispheres of the brain, associated with an appoplectic clot of enormous size, beneath the softened cerebral tissue of the left hemisphere.

No. 2. Osseous tumor resulting from a development of the associated germs of supernumerary teeth, occurred in the case of S——, aged nine years, daughter of E. M. P——e, Esq., a well know gentleman of Cahawba, Ala. It caused an expansion, first, of the *body* of the right horizontal ramus of the lower jaw-bone (attended with intense suffering and much deformity of the face), and subsequently, of the *alveolar* process. The *latter* assisted in forming a cavity, lined apparently with mucous membrane, in which the osseous substance was completely imbedded and concealed.

This tumor—brittle, of a pale yellowish color, compact externally, slightly porous within—is an inch and a half in length and conical in shape. Its base, flat and rough, measures an inch in diameter and rested obliquely on the bottom of the cavity formed by the expansion of the ramus and the alveolar process. Its apex pointed upwards and backwards.

Developed under prolonged pressure, and resulting from a thorough incorporation of all the elements of dental tissue, this osseous *conglomerate* is chiefly composed of dentine, out of which crop brilliant points of enamel.

The diagnosis expressed, and *written*, before the removal of the tumor, was as follows: "It is probable that the development of the amalgamated germs of the molar teeth has expanded the horizontal portion of the lower jaw-bone. The osseous mass now occupies the position of the teeth, and will probably be found to consist of bone proper (of the teeth) irregularly mixed with enamel."

The eruption of one or more teeth, *since the removal of the tumor*, from points directly beneath its former bed, proves that the dental germs which formed it were *supernumerary*.

My diagnosis, though not absolutely correct, for supernumerary germs were never dreamed of, was sufficiently near the mark to lead to very important results.

In order to set forth fairly its practical value, and to show the necessity of great caution in the examination of *such* cases, it may not be improper to state, that when I first saw the child, the condition of the jaw mentioned above had existed for nearly *two years*, and, it is scarcely necessary to add, had given rise to the most anxious solicitude. The case had been examined by many surgeons beyond the limits of this State (Ala.), and the opinion generally prevailed that the inferior maxillary was diseased, and the resection of the bone was inevitable, immediately or prospectively. In accordance with this view the father of the patient was in search of a surgeon to perform the operation.

Now, the following considerations seemed to warrant a different conclusion: the age of the child—absence of the molar teeth on the affected side—the intensity of the pain during a period which, as well as I could elicit from a searching inquiry into the history of the *swelling*, appeared to be coincident with that of the expansion of the jaw—the subsidence of the pain, in a great measure, after the deformity of the face had reached its maximum, and lastly—a *je ne sais quoi* which attends every case, and which (to make a paradox) must not be overlooked.

Those who had previously examined the case had, in my opinion, been misled by referring the absence of the teeth and the accompanying symptoms to an idiopathic affection of the jaw bone; and by not attaching due importance to the influence which the teeth themselves, irregularly developed, and unsuccessfully attempting to effect eruption, might exert in producing the phenomena.

Taking this view, and bearing in mind the well known trouble which the wisdom tooth sometimes occasions at a more advanced period of life, it was not a difficult matter to locate in the jaw a cause independent of *inflammatory* or *malignant* action, through which the signs might be interpreted.

Confident of this, and unwilling to frighten the child by a display of surgical instruments, I placed her in the hands of an eminent dentist, Dr. R. O. Shaw, now of New Orleans, who, after very free scarification, etc., succeeded, with some trouble and force, in elevating from its socket the mass which I have undertaken to describe. Extracted March 24, 1858. Result—a complete cure *without injury* to the inferior maxillary, and without the necessity of an *external incision.*

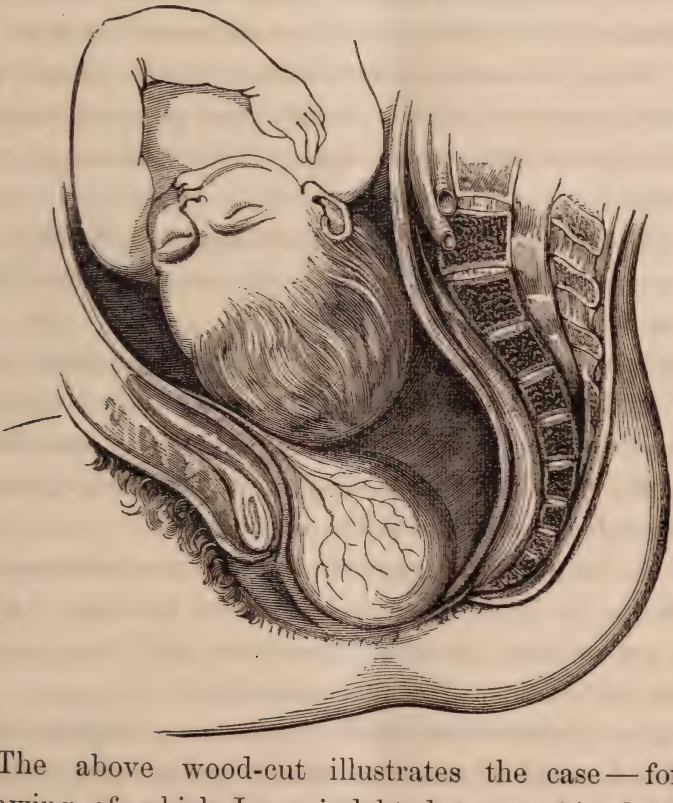
No. 3. *Scirrhus Mammæ.—Hard Cancer of the entire Breast.*—Case of Rose, aged ——, servant of R. H. Redwood, Esq.; retraction of the nipple, well marked. On the right appears the outcropping of scirrhus ulceration; on the left an oblique incision has been made to expose the internal structure of the morbid mass. It may be seen that all the normal tissue of the mammary gland has degenerated into scirrhus. Behind, a portion of the pectoralis major muscle, *morbidly* attached to the tumor, still adheres.

The lymphatic glands being affected either sympathetically or specifically, the *general rule* was departed from *only* at the earnest solicitation of the patient. *Her* temerity has been rewarded by a respite from death, and a comfortable existence for many months.

The breast was removed in the presence of Drs. Redwood and Gaines, Nov. 15, 1858. At the last examination, Nov. 15, 1859, there was no return of the disease. As stated above in the description of the specimen, the entire mammary gland, and a portion of the pectoralis major muscle were removed, and, I must add, all the suspected ganglia that I could lay hands on in the vicinity.

No. 5.—*Polypus Uteri.—Fibro-Vascular Polypus of the Womb.* Case of Mrs M——, aged forty-five years, mother of nine children.

This tumor, highly vascular, and larger than a goose's egg, was attached to the anterior lip of the os uteri. It formed a serious complication of labor. The fœtal head descending, had forced the polypus forwards and downwards against the pubic arch, and rendered delivery impossible in consequence of its presence. The case occurred in the practice of Dr. Gaines, at whose request I operated. A needle charged with a double ligature was thrust through the tumor near its attachment to the uterus. The neck thus divided was then tied, right and left, and the polypus excised. Excision followed by birth of the child. The obstruction was removed, Aug. 24, 1857; and the mother and child are both living.



The above wood-cut illustrates the case — for the drawing of which I am indebted to my friend Morton Toulmin, Esq., of this city. In Ramsbotham's System of Obsterics may be found a similar complication of labor. Cazeaux, in his accouchments copies the figure.

The tumor above described differs from that of Dr. Ramsbotham only in its point of attachment. His was attached posteriorly—*this* to the *anterior* lip of the womb.

No. 6. *Heterologous Tumor of Two Years Standing.*—Case of Emmeline, servant of D. Stodder, Esq., a well known merchant of this place. The precise pathological nature of this tumor is undetermined. It had its seat over the right femoral artery, and was extirpated May 3d, 1856. The specimen is remarkable for its form, which alone is my excuse for giving it a place in this list.

The base, broad, thick and flat is almost scirrhus hardness. From the centre of its *cutaneous* surface, there projects what appears to be for the most part a pyriform continuation of the morbid tissue. This appendage was originally four or five inches in length—hard and round at its junction with the base—much larger and softer at its free extremity, where its cutaneous covering resembles mucous membrane.

It was inconvenient; never painful. Suspecting, however, malignant degeneration of an epithelial nature, the dissection was made with a liberal hand. It has never returned. Of what it is pathologically I confess ignorance. It has not been subjected to the microscope.

No. 7. Is the inferior extremity of the humerus resected, Jan. 8, 1858, from the left arm of John, aged nine years, son of John Davidson; residence Shell Road, opposite the intersection of Kilmarnock street.

History of the Case.—Fall from a tree, causing *compound* dislocation of the humerus at the left elbow-joint, complicated with fracture of *both* bones of the fore-arm above the wrist-joint. The tendon of the biceps was severed by the protrusion of the humerus; and the extremity of that bone, dry and rough, having been forced into the ground at the time of the accident, and exposed to the action of the air for two hours afterwards.

Sensation below the seat of injury being perfect, and the brachial artery and its branches having, strange to say, escaped injury, I determined so to operate, as to reduce the case to the condition of a resection of the upper half of the elbow-joint; and to treat the *double* fracture below as well as circumstances would permit.

Having cleared away the soft parts, the lower end of the humerus was removed by sawing through the shaft, an inch and a half above the condyles. I was assisted in the operation by Drs. Follen and Walkly, who reached the case before me. Result: a complete cure, with an elbow-joint capable of flexion, extension and *rotation*. This day, now more than two years since the operation was performed, the boy can apply with ease the palm of the left hand flat to the nape of the neck; and can, as he has frequently done in the presence of the most respectable medical witnesses, raise a considerable weight by flexing the fore-arm upon the arm.

Remarks.—The age of the patient considered; it is possible that the articular plates may have been retained. But, this admitted, the subsequent union of the sawed shaft of the humerus with *these detached surfaces*, the division of the biceps muscles, the detachment of the heads of all the muscles that claim the condyles of the humerus for points of common origin, the fracture of *both* bones of the fore-arm complicating the case, and lastly the result—a joint possessed of all the power and motion necessary for the purposes of life, mark this specimen as an important illustration in surgical practice.

CASE OF SUDDEN DEATH UNDER THE USE OF CHLOROFORM.

Reported by Gustavus Devron, Resident Student at the Charity Hospital.

WITH REMARKS,

By Austin Flint, M. D., Prof. of Clinical Medicine, etc., N. O. School of Medicine.

Nicholas Collins, a native of Ireland, aged 32 years, laborer, was admitted in ward No. 7, of the Charity Hospital, at 9 o'clock on the morning of the 14th of February, 1860, suffering from an injury caused by falling into the hold of a ship, some four hours previous. At half-past 9 Professor Choppin, visiting surgeon to the Charity Hospital, examined him, and finding that the least motion of the limb was painful, resorted to the use of chloroform. This was administered with due care and attention, seven drachms only being used. The patient after some resistance to its effects, was brought under its influence, and the surgeon was about examining the limb, when the patient was seized with sudden rigidity and ceased to breathe. The mouth was examined instantly and the tongue found to be in its normal position. The heart had ceased to beat. Cold aspersions, the inhalation of ammonia, Marshall Hall's ready method, and the galvanic battery were resorted to, but to no purpose, the patient was dead.

At 11 o'clock, on the same day, a post mortem examination of the body was made in the amphitheatre of the Charity Hospital, before a large number of students and physicians.

On exposing the thoracic cavities the lungs were found to be healthy, but all the cavities of the heart were full of uncoagulated venous blood; the valves were sound. On removing the calvaria the dura mater was found much congested, and presented a dark spot over the right hemisphere. Between the dura mater and arachnoid was a clot of coagulated blood, two inches in breadth, four inches in length and one fourth of an inch in thickness, and under it was a well marked ecchymosis on the surface of the brain beneath the arachnoid. The brain presented no other injury. About three ounces of serum were collected at the base of the skull. None of the liquids or solids of the body presented any odor of chloroform.

Remarks.—It should be added to the foregoing account of the autopsy, that a fracture of the pelvis was found.

The important question at once arises, is this an instance of death from chloroform? The appearances found at the autopsy would be regarded as sufficiently accounting for sudden death, had no anæsthetic agent been administered. It may reasonably be supposed that pathological conditions incident to the injury of the membranes of the brain were in fact the occasion of death, and that its occurrence while chloroform was being administered, was simply a coincidence. An increase in the quantity of extravasated blood, or the effusion of serum into the arachnoid cavity may have constituted the immediate cause of death. We are not disposed, however, to take this ground. It seems fair to attribute to the chloroform a certain amount of agency in the sudden death. It would, however, be unfair to consider this case as one of those in which death is due exclusively to the effects of chloroform. These effects were fatal in conjunction with a considerable amount of meningeal extravasation together with the general shock from the injury which the man had sustained. To determine precisely what relative importance belongs to these combined circumstances respectively, is impossible; all that we can say is, the combination excludes this from the list of cases of death from the use of chloroform.

The importance of making public all the instances in which death has occurred during the administration of chloroform, is too obvious to require remark. To report all such instances is a duty alike to the profession and to humanity. The introduction of the use of this anaesthetic agent is as yet too recent for its danger to be fully understood. What is the risk to which its use exposes a patient? this question cannot be answered till the proportion which the instances of fatality bear to the number of cases in which it has been employed, is ascertained. But this question by no means covers the whole ground. It remains to ascertain if possible, under what circumstances its administration is liable to prove fatal. We can hope to arrive at conclusions with respect to the latter point, only after an accumulation of fatal instances, in which all the attendant circumstances are reported. An analysis of a sufficient number of these instances may lead to results of great practical importance. At present, our views of the conditions under which the use of chloroform is, on the one hand, safe, and on the other hand, hazardous, must be considered as mainly based on conjecture, or at all events, as resting upon insufficient data.

The case now reported suggests an instance of death occurring under the use of sulphuric ether, which was reported to the New York Pathological Society, by Professor Alonzo Clark, in March, 1859.* In this instance sulphuric ether was administered to a patient in Bellevue Hospital, in order to relieve a paroxysm of intense pain in the head. This had been previously resorted to with success, several ounces having been inhaled at a time, and the patient kept under its influence for several consecutive hours. On examination after death in this instance, no disease was discovered to account for death, save a tumor in the cerebellum, of a jelly form material, measuring three inches in length, two and-a-half inches in width, and three-quarters of an inch in thickness. In connection with the report of that case Prof. Clark inquires: "Is this the first case, or one of the first cases of mortal issue from etherization (i.e. the use of ether); or did the death occur in consequence of the presence of this tumor; or did the existence of this tumor render it more dangerous to administer ether?" Professor C. does not answer these questions, but he cites two cases, reported by Dr. James Turnbull, of Liverpool, England, of sudden death, in which the existence of cysts in the cerebellum was the only cause of death revealed by the scalpel. There were cases in which neither chloroform nor any anæsthetic agent had been administered. "These prove," to quote the language of the reporter, "that cysts in the cerebellum are probably a more common cause of sudden death than is generally known." This fact has an obvious bearing on the questions just quoted, with regard to the agency of the ether in the case of Bellevue Hospital. These same questions are alike applicable to the case of the Charity Hospital reported in this article. Here, too, as in the case reported by Professor Clark, it is to be borne in mind, in connection with the questions, that meningeal apoplexy, not unfrequently proves suddenly fatal. In illustration of this fact I could cite instances which have come under my own observation.

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* Vide New York Monthly Review, etc. No. for October, 1859.

In the case reported in this article the autopsy was made two hours after death. Some facts of interest and importance were developed which, had a longer period elapsed, might not have been disclosed. All the cavities of the heart were equally distended with liquid blood. This accords with the observations of Professor Dalton, on inferior animals, as presented in the series of lectures on the circulation now in course of publication.* Prof. D. finds that when animals are destroyed by arrest of respiration the cavities of the left as well as of the right side of the heart become distended, but after the lapse of several hours the left ventricle is found comparatively empty. This Prof. D. explains by supposing that the contents of this ventricle are in a great measure expelled by the rigor mortis inducing a greater force of contraction in the left than in the right ventricle, owing to the greater quantity of muscular tissue in the former.

The blood was liquid in the cavities of the heart, but that which was extravasated on the surface of the brain was coagulated. This shows that extravasation commenced neither after, nor at the time of death, but for some time previously. It proves that, so far as the coagulated portion of the extravasated blood is concerned, the use of the chloroform could not have induced the extravasation.

With regard to the mode in which chloroform and ether prove fatal, Professor Dalton's experimental observations on animals are of great interest. These agents do not destroy life solely by arresting respiration, but by paralyzing at the same time the heart. If the respiration be arrested by breaking up the medulla oblongata, the heart continues to act for some time, even for hours, in the turtle and other cold blooded animals. But if the animal be killed by chloroform or ether, the cessation of the heart's action follows quickly the arrest of respiration, too quickly to consider the former as an effect of the latter. In watching, therefore, the effects of an anæsthetic agent, the pulse is of more importance than the breathing. A point in the history of the case reported in this article, which goes to show the agency of the chloroform in the sudden death, is the simultaneous cessation of the action of the heart and the respiration.

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* New York Monthly Review.

The experience of Professor Dalton and others, in the use of chloroform and ether, in experimental illustrations of physiology by vivisections, is not without importance in estimating the comparative safety of these two anæsthetic agents in medical and surgical practice. Dogs, cats, and rabbits are so often destroyed by chloroform, given sufficiently to render vivisections painless, that the risk becomes a serious obstacle in the way of successful experimentation. On the other hand sulphuric ether may be administered as freely as required, with comparatively small risk of destroying the animal.

CASE OF TUBERCLE OF THE BRAIN.

Reported by D. Sidney Kelley, Jr., Resident Student, U. S. Marine Hospital, New Orleans.

R. P., sailor, native of Germany, aged 29 years, entered the U. S. Marine Hospital, on November 29, 1859. For a day or two previous to admission he had experienced pains in the lumber region and inner part of the thighs, accompanied by retention of urine. External local applications relieved to some extent the pains, but catheterism was necessary for eight or ten days after admission, when delirium supervened, which continued for a few hours. After this he passed his urine without assistance. On the following day he had another attack of delirium, resulting in hemiplegia of the left side, and incontinence of urine. His condition was so feeble from this time, as to render stimulants necessary. For incontinence of urine the following, which was effective, was prescribed: R. bals. copaiba, tinct. cantharides, tinct. opii camph., aa ℥ss. S. teaspoonful 3 times a day. After this took mist. strychniæ et quiniæ (dose gr. 1-16 of the former and gr. 1 of the latter, 3 times a day), after which, incontinence of urine again supervened, which was only partially relieved by the administration of the copaiba and cantharides tincture. Upon the following day strabismus of the left eye was observed, and on the day succeeding, the right eye was similarly affected. A morbid appetite existed during his entire illness. He gradually became more prostrated, until three days before death, when he became comatose. He died on the 10th of March, 1860.

Post-mortem examination revealed congestion of all the cerebral vessels, and some effusion of serum in the ventricles; the substance of the brain was somewhat softer than natural, more especially the right thalamus opticus, in which were found embedded four tubercles, the largest of which was about the size of a filbert.

The lungs were found entirely free from tubercular deposit.

The liver was slightly atrophied, and very much engorged. In the upper part of the right lobe, near the attachment of the falciform ligament, was found a tubercle about the size of a hen's egg. (I send you the specimen).

The other organs were apparently in a healthy condition.

I have taken the liberty of sending you the particulars of the above case as one of rare occurrence among adults. Solly in his work on the brain, makes the following remarks on the subject; "Dr. Hennis Green, in an admirable paper on this subject, points out its freqnency in children as compared with adults. Cruveilhier never saw an example in advanced life. Louis met with only a single case in 117 cases of phthisis among adults. And Lugol assures us that in his extensive practice at the Hospital of St. Louis, he has seen only eight cases of the disease. * * In six of these eight cases no symtoms existed during life; and Mr. Lugol affirms, that the diagnosis of cerebral tubercle is involved in the greatest obscurity. * * * Tubercles vary in size from that of a pea to that of a large egg; in number from that of a single mass to that of fifty. In no instance," says the same author, "was the affection confined to the brain."

A REMEDY FOR CONGESTIVE CHILL.

By J. E. Keator, M. D., of Cheneyville, La.

Messrs. Editors.—As the summer is again approaching, and we have reason, from past years' experience, to believe that with it will come those diseases that have heretofore been companions of the warm season, I have thought it might be proper to offer to the profession, through the columns of your excellent journal, an article for the treatment of congestive chill which I have found of service in my practice during the last season.

On the 4th of August I was called to see a negro girl about fourteen years of age, in her third chill, which was decidedly one of the strongest marked cases of congestive chill I have ever seen. On enquiry from the lady who was nursing her, I learned that both the others were of the same character, but perhaps not quite so severe. I found her pulseless at the wrist; arms cold nearly to the body; legs in the same condition; breath decidedly cool; tongue cold; also the ears, nose and scalp; great thirst, and constant call for water, which was thrown up usually almost as quickly as swallowed. The burning pain of the epigastrium was about all she complained of. I ordered her feet immediately immersed in a hot foot bath, strongly impregnated with mustard. Sinapisms were applied to the thighs, wrists and spine, and cold cloths to the stomach and epigastric region. When her feet were removed from the bath, where they were kept fully fifteen minutes, the skin was as cold as that of a corpse. Believing the case almost a hopeless one, I determined to try a remedy I had not yet heard of being used in such a case; viz: chloroform. I commenced by giving five drops in a little water. Within less than two minutes after the dose was swallowed the girl remarked that the burning at her stomach was gone, the vomiting ceased, and she seemed to rest a little. I continued giving it at intervals of from ten to fifteen minutes for nearly two hours in the same quantity as at first, and each time had the satisfaction of hearing from the lips of the patient herself that it made her stomach feel so much better that she wanted more of it. At the end of two hours the pulse was full and strong at the wrist, the extremities were warm, and reäction was fully established. The fever was only moderate. By the free use of quinine another chill was prevented, and the patient fully recovered. Within three quarters of an hour after she commenced taking the chloroform the pulse was perceptible at the wrist; and I must add, gentlemen, that, from very close observation of the case, I am as fully convinced that the patient's life was saved, at that time, by the effects of chloroform as a physician can be of the effects of any medicine when he has had but the one opportunity to try it.

I offer this only as a hint, hoping that others may find it as much a friend in time of need as I did in this terrible disease, which often affords us so little time to give battle before the patient sinks.

THE EPIDEMIC YELLOW FEVER OF 1859, IN HOUSTON, TEXAS.

By WILLIAM McCRAVEN, M. D.,

[It will, perhaps, be remembered that in the numbers of this journal for October and November, 1858, one of the editors called attention to the happy effects of the *veratrum viride and chlorine*, the new remedies for our terrible southern pestilence, and gave the results of his experience in upwards of fifty cases in private practice, which seemed to be remarkably satisfactory. He did not furnish the details of his cases for want of time; being desirous to allow others to try the remedies before the expiration of the season, and politely requesting those who should do so to report their experience. The late Dr. Duval, of Houston, Texas, sent in a very favorable report which was published in the December number of the same year. Dr. W. McCraven, of Houston, also wrote to the editor respecting that epidemic, but expressed himself so well satisfied with his own treatment that he hardly felt authorized to try a new one. Drs. Hunsacker and Baldridge, then of Indianola, Texas, reported verbally and very favorably on the chlorine mixture, but did not try the veratrum. The experience of several physicians in New Orleans was highly favorable to both remedies.

When the editor was leaving for Europe, last spring, he published full directions for the application of these remedies, under the hope that they would be more fully tried in case yellow fever should again prevail. The only place at which the disease prevailed epidemically was Houston, and we have now the satisfaction of publishing the following interesting account of it by Dr. McCraven, in which he bears most favorable testimony to the virtues of the *veratrum*, but still omits the chlorine mixture. We thank Dr. McC. for his interesting letter, and if he should ever have to contend with yellow fever again, we hope he will review our theory and try both remedies.—E. D. F.]

HOUSTON, TEXAS, JAN. 16, 1860.

Dear Doctor: As you have for some years past taken a deeper interest in, and bestowed more labor on, the epidemics of the South than any other member of our profession with whom I am acquainted, I propose to give you a concise history of the yellow fever with which we were scourged during last autumn.

Of the causes which produce yellow fever I am entirely unable to form any definite and satisfactory opinion. We had it here first in 1839; then in 1844; a few cases in 1847; epidemic in 1848, while Galveston escaped, having been scourged the previous year. Again we had it in all its vigor in 1853 and 1854. The two succeeding years there were, I believe, a few cases, but no epidemics. In 1858 epidemic, and in 1859, again epidemic. Now, why it was epidemic in the years when it was so, and totally absent during the intervening years (which is an undoubted fact) I have been and am entirely unable to account. Nothing in the condition of the town or the people explains it to my mind. We have generally had it at this place at the same time, but almost always later in the season than at Galveston. But why did we escape and Galveston suffer in 1847, and just the reverse in 1848? Nothing apparent in either place explains the phenomena. If the epidemic of 1859 stood alone we might form some reasonable conjecture on the subject of its genesis. But then our conjectures would not be supported by the history of former epidemics. Last year we undoubtedly had several causes coöperating to impair the sanitary condition of the town. First—a larger than usual amount of grading of streets and other disturbance of virgin soil. Second—a large quantity of shells fresh from the bay, laid down in the streets and exposed to the hot sun. Third—a quantity of sediment was dredged from the bottom of the bayou and scattered about town. And all these things occurred in the middle of summer, and were followed by the hottest September and October I have ever witnessed. Now, this state of things was undoubtedly calculated to generate disease, but would it generate yellow fever? I doubt it. Nevertheless, yellow fever made its appearance about the 10th of September here in Houston. There was none in Galveston; none, or almost none, in New Orleans; scarce any on the gulf coast. It must have originated right here. It spread to Cypress, Hockley, and Hampstead on the Central Railroad, to the town of Montgomery, in Montgomery County, and to Galveston, besides Oyster Creek, in the country, where several cases occurred, having contracted the disease from a case taken there from this place. Two, I believe, died of black vomit. I saw the first case in town *dead*, I believe on the 14th of September. On the same day I saw another case which died with black vomit two days after—both cases, I think, sickened on the 11th. Before the end of the first week in October the epidemic was established. The last case which came under my observation sickened on the 4th of December. Two or three cases, I believe, died that week, and I heard there were some cases still later—perhaps after the middle. This, so far as I know, was later than we had ever had the disease heretofore. While I was attending my last patient I saw ice in the yard four inches thick. So much for the duration, beginning, and end of the epidemic, and also for its causes, if we can be said to know anything of its causation.

I will now add a few observations on its treatment. You are aware that I have been an advocate for a very simple treatment of yellow fever—believing that like scarlatina, measles, etc., it has a definite course to run, and that all the physician can do profitably is, not to cure the disease, but to carry the patient safely through it, with as little damage to the various organs as possible. Such is still my view of the indications; but I was compelled to adopt a more active course of treatment to guard the organs from fatal lesions. In one particular the late epidemic differed from any I have heretofore witnessed. The patients usually discharged large quantities of bile. I found it necessary to use mercurials in moderate doses; to cup pretty freely in robust cases, the head, stomach and back—taking four to eight ounces of blood, and sometimes repeating it. I usually emptied the stomach in the first place with mustard, or simple warm water, followed by the mercurial purge, and when fever had fully developed itself the cups and a mixture of the tincture of veratrum viride and tincture of aconite to control the circulation. I only adopted one-half of your suggestion—omitting the chlorinated mixture; though it would, doubtless, be of service in many cases—but I was desirous of simplifying my remedies, and making them as palatable as possible. I adopted the combination of veratrum and aconite, at the suggestion of my friend Dr. Hay, who had been using it with much satisfaction. The following is the formula I usually prescribed : ℞. tincture of veratrum viride, ʒi ; tincture of aconite, ʒi ; sulphate of morphia, gr. i ; syrup of orange peel, ʒiv. ; water to make a four ounce mixture. Give a teaspoonful every two hours during fever. This was usually continued for thirty-six or forty-eight hours. I did not try the veratrum alone or in cumulative doses. I was so well pleased with the results of the above course that I was satisfied to follow it out, of course with such modifications as circumstances required. In a few of my first cases, which I treated after my long established simple plan, I was very unsuccessful. But after adopting the course above outlined I have never been more successful. I was at one time in the midst of the epidemic twenty-five days without the loss of a single patient, and I lost but two under this course of treatment. My patients were much relieved unquestionably by the cupping, and I think the mercurials were clearly indicated by the quantity of bile ; but still I feel assured that the veratrum and aconite influenced the results to a considerable extent. I had heretofore been prejudiced against veratrum in yellow fever. I feared its irritating effects on the stomach, but in practice I found exactly the reverse. I think I cannot be mistaken in the notion that by its influence on the circulation it prevents, in a great measure, those congestions both of stomach and kidneys which terminate so often and so fatally in black vomit and suppression of urine. Whether it would have done as well without the aconite I cannot say. I will conclude by observing that since 1853, yellow fever seems to have become much more communicable than it had been for many years previous.

There can be no doubt that it was transmitted from Houston to the places above named last autumn, and previous to 1853 such a thing was unheard of, at least in Texas.

SPECIAL SELECTONS.

LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the COLLEGE OF FRANCE, during the Winter Session 1859–60.

By M. CLAUDE BERNARD, Member of the French Institute; Professor of General Physiology at the Academy of Sciences.

LECTURE III.—EXPERIMENTAL PATHOLOGY.

Necessity of a Knowledge of other Sciences in the Study of Medicine—Pathological Symptoms can be produced by Artificial Means—Can Pathological Symptoms be Explained on Physiological Principles?—The Nervous System, the Origin of all the Normal Phenomena of Life, as well as of all Pathological Action—Development of Nervous System increases as we rise in the Scale of Animal Life—A great Proportion of Diseases can be produced at pleasure, by Operating on Different Parts of the Nervous System, without the Introduction of any new Principle into the Economy—Effects Produced on a Muscle or Bone when Deprived of its Nervous Supply—Certain Morbid Phenomena, apparently incapable of being Reproduced, are nevertheless Dependent on the Nervous System, and can be called into action at the pleasure of the Physiologist—Some Diseases cannot be Imitated by Artificial means—Will the Biologist be able one day to accomplish this Object? or must he for ever continue to recognize a special Morbid Principle, incapable of explanation?—Each Species of Animal has Diseases peculiar to itself, which cannot be Transmitted to neighboring Species—Perverted Nutrition the Source of all Morbid Tissue—Influence of Nervous System on Nutrition—Disease not an Isolated Symptom, but a Series of Symptoms—Effect of Extirpation of Kidneys and Ligature of the Renal Arteries—Vicarious Elimination of the Urea by the Intestinal Mucous Membrane—Effect of the Cessation of this Vicarious Elimination of Urea—Extirpation of both Kidneys always followed by Death—Certain Maladies can only be produced by Agents Exterior to the Body—Removal of One Kidney not Fatal, its Function being performed by the remaining one—Section of Renal Nerves always proves Fatal, by leading to Destruction of Kidneys and the Production of an Animal Poison in the Interior of the Body—Initial Proposition Established: Morbid Symptoms and Actual Diseases can be Produced by Artificial Means—Pathology a Combination of Physiology and Clinical Medicine.

GENTLEMEN—In my first lecture I made you acquainted with the course which I proposed to carry out in the study of Experimental Pathology, and I endeavored to show you how difficult it was to enter on the study of so complex a science as that of Medicine, without having previously acquired a preliminary knowledge of other sciences less complicated in their nature ; lastly, I endeavored to combat an opinion, too generally entertained, viz : that physiological phenomena belong to an order of facts entirely foreign to those which occur in the morbid state.

We shall now enter on the study of the symptoms peculiar to the pathological state, the agents which give rise to them, and those calculated to bring about their removal ; lastly, we shall produce all the phenomena of disease by artificial means, and shall then endeavor to make them disappear.

But, before entering on this subject, it is indispensable to ascertain whether everything which occurs in a state of disease can be explained on physiological grounds ; or, whether disease has the peculiar property of originating, in the living being, laws altogether new, and of which we have not the slighest idea as existing in a state of health.

If, in the case of an adult in the full enjoyment of all his faculties, we ask ourselves what is the regulating agent, what the *primum mobile* of all physiological actions, we are constrained to reply that its seat is in the nervous system. It is to the nervous system that we owe both sensibility and voluntary motion, that two-fold source of all our relations with the external world ; it presides over all organic functions, and it is my intention to prove to you, that while it is the origin of all the normal phenomena of life, it is also that of all pathological action.

In proportion as we ascend in the scale of animal life, we see the nervous system acquire greater development, and at the same time we observe that diseases become more frequent, more variable in their form, and more complicated in their nature. Why should this coincidence astonish us? Are not all our organs dependant directly on the nervous system? If we take, one by one, the different systems of the animal economy, it will be easy to show that all the symptoms of the diseases to which they are liable, may be produced by direct irritation of their corresponding nerves. We can even give rise, in this way, to all the anatomical lessions by which they are characterized.

What, for instance, are the principal signs of the affections of the respiratory organs? Cough, dyspnœa, increased bronchial secretion; are not these the symptoms which most frequently proclaim their existence? Now all these phenomena can be produced at will by the direct excitation of the pneumogastric or certain other nerves; we can even call into existence the anatomical lesions incidental to pleurisy and pericarditis. The causes of these morbid changes would therefore appear to be intimately connected with the nervous system. If we now turn our attention to the digestive apparatus, we shall soon be convinced that the physiologist possesses the same power relative to it, as he does in the case of the respiratory organs. By exciting the solar plexus and its efferent branches, we can determine both diarrhœa and dysentery, together with the anatomical lesions which habitually accompany them. Acute peritonitis has even been induced with all its consequences, as evidenced on opening the animal, by the presence of pus and false membrane in the peritoneal cavity.

Thus, then, a multitude of diseases may be brought into existence by a simple modification of the elements which the animal economy originally contains, without having recourse to the introduction of any new principle; and, if we were to examine the other systems of the body, results analogous in their nature would be obtained. Fever itself, that essentially medical symptom, can be excited by a mere mechanical irritation of the nervous system, and the products of inflammation, such as pus, false membranes, and plastic exudations, may, any, or all of them, be called into existence, in a similar way. In an animal, previously enfeebled, we can produce directly pleuritis with purulent deposit, by the simple division of the great sympathetic nerve; in order, however, to ensure success in this experiment, it is absolutely necessary that the state or condition of the animal's health be previously lowered.

It is, therefore, a fact, that the perverted state of the nervous system gives rise to a great variety of diseases, not only of a general, but also of a local character: deprive a muscle or a bone of its nervous supply, and you will have, as a consequence, fatty degeneration in the one case, and rickets in the other; in fact, if you tie the nerves, which enter the nutritive foramina of a bone, you will very soon see the cells of the lamellar structure increase in size, the vessels become more numerous, and all the phenomena of rickets follow in rapid succession: we can even bring about these results on *part* of a bone, without interfering with the remainder. This experiment has been successfully carried out, in the case of the lower jaw, by M. Schiff of Berne.

But there exists in disease an immense number of other phenomena which, at first sight, it appears impossible to produce by a simple lesion of the nervous system; I allude especially to the alteration or modification of the fluids of the body, which takes place in the course of certain maladies. Now, I am prepared to demonstrate that a vast number, if not all, of these morbid changes, are still to be traced to the action of the nervous system, and that they can be reproduced at pleasure by the physiologist. Among the various fluids of the body, the urine is that one the morbid changes of which have been the most carefully and completely investigated. Now you are perfectly aware, gentlemen, that albuminuria, polyuria, and diabetes are invariably produced by excitation of definite points of the medulla oblongata, the peculiar form of the perverted urinary secretion being determined by the particular portion which is acted on : it is in the case of diabetes especially that the importance of this experimental fact is fully brought out. It was supposed that in diabetic patients the morbid state created entirely new conditions in the economy, which gave rise to the pathological production called sugar ; it is now, however, admitted on all hands that these phenomena are fully explained by the mere exaggeration of a normal function, in virtue of which glycose is generated in every individual even in a state of health. It is therefore evident that disease, in this case, is nothing more nor less than an exaggerated natural function.

There exists, however, a certain number of pathological products and morbid manifestations which we have not been able to imitate by the employment of artificial means. Shall we be able, at a later period, to connect these facts with those which already fall within the range of experimental physiology ? Such is the scientific problem of the day. The question is, whether we shall, one day, be able to embrace pathology in its entire extent, within the compass of biological explanations, or whether we shall, in addition to all which we can imitate or explain, for ever be compelled to recognize a *special principle*, mysterious in its nature, which we must acknowledge as a morbid or vital phenomenon?

Let us take, for example, eruptive fevers, small-pox, scarlatina and measles; these are diseases, indeed, which it is impossible for us to produce without having recourse to a special virus. Shall we, one day, be able to realize this undertaking without the intervention of the peculiar animal poison on which they seem to depend? Must we not, first of all, solve the question, whether such diseases as those we have just specified can possibly exist in animals, even in those which approach most closely to the human species? Are they not in reality the exclusive property of the human organization?

Nothing is more difficult than to produce, through the agency of the nervous system, eruptive diseases in animals, the vitality of the skin of which is essentially different from that of man. We can, nevertheless, produce ecchymosis, congestions and glandular swellings; but it must always be borne in mind, that each particular species of animal has its own peculiar diseases, which cannot be transmitted to a neighboring species, however closely allied they may be. Now man, in himself, presents a greater number of special diseases than all the other animals taken together.

Fortunately for physiology, such incompatibilities are rather the exception than the rule. Tubercle, cancer, and many other morbid productions, are found equally in animals and in man. Every disease which gives birth to morbid tissue is evidently a perversion of the nutritive function; now, who will venture to deny the influence which the nervous system exercises over this physiological act? We must, therefore, advance resolutely in the path which lies open before us, without allowing ourselves to be disheartened or intimidated by the difficulties of our science. But we must bear in mind that a disease is not characterized by one single symptom; it consists rather of a complete series of symptoms, standing to each other in the relation of cause and effect. It is, in fact, a morbid evolution which offers a commencement, a middle, and an end; so that a skillful and practiced observer, on witnessing the first stage of a disease, can predict its probable termination. This is no doubt true; disease does not consist in an isolated symptom; it is a collection of symptoms, Now these reunions of morbid phenomena, we indubitably succeed in reproducing in animals. The functions of life are modified in various ways by a variety of different agents. Poisons determine real disease which present an unbroken chain of symptoms, consequent on the introduction into the system of the toxic agent. Here, therefore, we find an entire class of diseases which can be produced at will.

But setting aside this question of such vast dimensions, and to which we shall revert at a later period of our course, let us inquire whether, by mere surgical operations, by mere mechanical leisons, we can determine on the animals subjected to experiment, a certain number of morbid series. If you simultaneously remove the two kidneys of a dog, or simply tie the renal arteries, you immediately produce a general disturbance in the entire economy. The animal is powerless in expelling the excrementitial product which should pass off by this channel, and the whole system becomes gradually poisoned. At first the animal is not seriously affected; it continues to eat and digest its food for a certain lapse of time, which corresponds with the period of incubation in diseases;

by-and-by it is attacked with vomiting and purging, shortly after which it dies.

What takes place in a case like this? Let us endeavor to explain it. During the first period the urea, which can no longer be eliminated by the kidneys, is expelled by the intestines. It is found, together with the salts of ammonia, in the animal's excrements, and even in the gastric juice. If this new mode of elimination could be prolonged indefinitely the animal would not become diseased—it would not die; but very soon the mucous membrane of the intestines, irritated by the constant contact with the ammoniacal salts, gives rise to morbid changes. On the other hand, as long as the urea is eliminated by the intestines, it does not find its way into the blood. This fact has been demonstrated experimentally by MM. Prevost and Dumas, who have not, however, succeeded in explaining it. Now, at a later period, when the mucous lining of the intestine refuses to continue this function, which is altogether foreign to it, the urea finds its way into the blood, and the animal soon expires, comatose and convulsed.

When the cessation of the urinary secretion depends on the ligature of the renal arteries, this state of things may sometimes be obviated by removing the ligatures; the self-same thing would also take place in man, if there existed an obstacle to the passage of the urine, and if it were possible to remove that obstacle; but in all cases in which the kidneys have been removed, death has always supervened. The destruction of the animal has been the invariable termination of the morbid series.

Here, then, we have a disease which can be artificially produced; but there are many others, the causes of which are agents existing exterior to the body; contagious affections belong to this class. The fact has been experimentally proved in the case of the peri-pneumonia of horned cattle, by the establishment of a communication between two cow-houses—the one containing healthy, the other diseased cattle. In the inclosure, which, in the first instance, contained only healthy cattle, several cases of this peculiar affection occurred in succession.

But independently of these various causes, the action of which I am far from being disposed to deny, internal accidents occur, and give origin to various affections in the economy. This has been experimentally proved; if you remove both the kidneys of an animal it dies; if you remove, however, only one kidney, the animal continues to live; the organ becomes enlarged, and plays both its own part and that of its absent fellow; a fact which can be easily ascertained by opening the animal a certain time after the operation has been performed. But if, instead of removing the kidneys, you simply make a division of their nerves, the animal dies. During the first few days which follow the operation albuminuria is produced; shortly after, inflammation of the kidneys sets up; they then mortify and become decomposed; so that, finally, they act on the economy like a septic poison, which inevitably leads to death. Such I consider to be the natural explanation of this *apparently* mysterious fact.

I now presume that I have established the initial proposition: Not only can we succeed in producing morbid symptoms in animals by artificial means, but even actual diseases, with their complete chain of results. Pathology, regarded from this point of view, combines the resources of physiology with those derived from clinical observation.

EDITORIAL AND MISCELLANEOUS.

"SOUTHERN MEDICAL STUDENTS AND SOUTHERN MEDICAL SCHOOLS."

> **"An open foe may prove a curse,**
> **But a pretended friend is worse."—Gay.**

There is within us a sense of pride which may prompt us to treat with sovereign contempt an indirect attack on our personal status in society; but the slightest innuendo directed against the noble institution to which we are attached, as teacher, and for the permanent establishment of which we have so long, so faithfully, and so honestly labored, shall never pass unnoticed, while we have its interests at heart, and can write clearly enough for the compositor to read our manuscript.

We had hoped that every medical journal north of Mason and Dixon's line, which had had its worst suspicions aroused by the voluntary secession of medical students from Philadelphia and New York, had ere this vented its fullest measure of spleen against Southern Medical Colleges, and we felt wholly disposed to drop the entire subject, and leave the leaven to its own work. But the March, 1860, number of the North American Medico Chirurgical Review, stirs the pool again, and with a gusto that tells plainly of the supremacy of self over all considerations whatsoever. After taking Prof. Bowling, of Nashville, to task, on a charge against which he is doubtless, fully able to defend himself, it says:

"In the article of our journal above referred to,* we included the schools in New Orleans as among those who had opened their arms to the disaffected students. It is due, however, to the University of Louisiana, to say, that she stood entirely aloof from any participation in the movement. We make this statement upon the assertion of our colleague, Dr. Richardson, the Professor of Anatomy in that institution, who declares that the whole faculty were opposed to the proceeding, and that no dispatch or communication of any kind was sent by them to this city, either before, during, or after the stampede."

Now, if we have a reader who thinks that our remarks are intended to excuse the New Orleans School of Medicine for the action she has taken in this secession movement, that reader knows not the material of which we are composed. We write to show that our institution stands on an eminence from which she can, and does, look down on all who directly or indirectly asperse her character; we write to prove that the charges made against her, directly and indirectly, have no shadow of foundation in truth; we write to show that the North American Medical Chirurgical Review has never given a *true* history of the secession movement; and we write to show this same Review, that in the maxim we have adopted at the head of this article it may find food for reflection. The simple credulity it has evinced proves that its mother never once mentioned to it the trite old proverb—"All's not gold that glitters."

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* In its January, 1860, number, this same Review says, when giving a history of the "exodus of southern medical students:"

"Addresses were made on the occasion, among others, by Dr. F. E. Luckett and Dr. H. H. McGuire; and letters and telegraphic dispatches read from Gov Wise, of Virginia, and the Deans of the medical colleges of Richmond, Charleston, Savannah, Augusta, New Orleans, and Nashville, tendering sympathy and a cordial welcome to such secessionists as might feel inclined to resort to those institutions."

1st, then: The only connection the New Orleans School of Medicine ever has had with the seceding students at the north was in her receiving a dispatch from New York city, signed by the "Alabama Committee," saying that the southern students contemplated leaving New York, that they had paid for their tickets, and desiring to know on what terms she would receive them: to which dispatch the Faculty sent the following reply:

"The Faculty of the New Orleans School of Medicine deeply regret that you have found yourselves under the necessity of leaving the school to which you are attached. They will receive you on condition that you pay for matriculation and graduation fees."

2d—The Faculty of the New Orleans School of Medicine have *never* had, *at any time*, *any* communication, of *any* kind whatsoever, with *any* student of medicine, attached to or seceded from *any* school in Philadelphia; and we now demand of the North American Medico Chirurgical Review, all proof to the contrary—not hearsay proof, but proof positive.

Finally—Has the Review's correspondent here ever furnished it with copies of the following resolutions passed by the medical classes of this city, and published in our daily papers, and said to have been telegraphed to students in the northern colleges?

NEW ORLEANS SCHOOL OF MEDICINE,
December 22, 1859.

At a called meeting of the students of the New Orleans School of Medicine, Mr. A. R. Gourrier having been called to the chair, Mr. W. W. Scott was appointed Secretary, and a committee was selected to draw up a preamble and resolutions, expressing the object of the meeting.

The Committee, after a few moments consultation, presented the following preamble and resolutions, which were unanimously adopted:

PREAMBLE.

WHEREAS, The Southern Students of Medicine in the Northern Colleges, desiring "not to patronize Northern Institutions," have asked of the Faculty of the New Orleans School of Medicine, on what terms they would receive them for the remainder of the current Lecture Season (they, the students, having paid for their tickets); and, whereas, the Faculty of the New Orleans School of Medicine have replied to them that they will receive them on payment of $5 for a matriculation fee, and that those proposing to graduate will pay the graduating fee, $25.

Resolved, That we cordially approve the action of our Faculty:

That we will most cheerfully receive all Southern students leaving Northern schools, and will freely share with them the great advantages by which we are surrounded, and to which we, its class, are entitled:

That the proceedings of this meeting be published in the Daily Picayune, True Delta and Sunday Delta:

That a copy of the papers containing the proceedings of this meeting be sent to the medical students in the different Northern schools:

That a telegraphic dispatch be forwarded immediately to those students who have already left or intend to leave the Northern schools, inviting them to accept the facilities of the New Orleans School of Medicine gratis.

MEETING OF THE MEDICAL STUDENTS OF THE UNIVERSITY OF LOUISIANA.

At a meeting of the Students of the Medical Department of the University of Louisiana, held on the 22d December, 1859, Mr. S. J. Luckett was called to the chair. The following preamble and resolutions were adopted:

PREAMBLE.

Having heard by late advices from Philadelphia, that a large number of Medical Students attending the Medical Schools of that city have been compelled to withdraw from the same on account of the sectional question which unfortunately divides our common country, and which should not have the least bearing on our glorious profession: therefore,

1. *Be it Resolved,* That in consideration of the sectional feeling now existing between the Northern and Southern portions of the Union, and the exhibition on the part of the North of hatred toward those institutions which we love and cherish, as the basis upon which our happiness and prosperity depend; and on account of the insults and outrages to which we are ever liable in the North, that we fully approve of the course pursued by our fellow-students of the South in Philadelphia.

2. That we tender to them our congratulations upon the manner in which they have acted in determining no longer to reside in a community in which there cannot be a feeling of mutual respect and friendship.

3. That, whereas, under existing circumstances we do not receive, on the part of the North that respect which is due to us as citizens of the United States, it is our duty as men of the South to afford that support to our own able institutions, which, for so long a time has been given to those of the North, to the neglect of our own.

4. That we appreciate the motives which induced our brothers in the profession to determine to come among us for the prosecution of their studies, and, furthermore, that we do extend to them the right hand of fellowship and good will, promising them, if fate should guide them to the "Crescent City" a welcome greeting; also assuring them that the facilities to be enjoyed in our institution, if not superior, are at least equal, to any on the Western Continent. And we feel ourselves warranted in further assuring them that our high-toned and liberal Faculty, as well as ourselves, will know how to receive them.

5. That these resolutions be published in the city papers.

Has the Review been informed by its correspondent whether *either* of the Faculties here ever "opposed" these proceedings, either publicly or privately?

Is the Review silly enough to believe that the classes of the schools here or elsewhere, could thus freely throw open the doors of the institutions without the positive approbation of the respective Faculties? Or if the classes did act thus independently of the Faculties (said Faculties being "opposed to the proceeding"), does not the Review think it the solemn duty of said Faculties to as publicly express their disapprobation of the course pursued?

Has the Review been informed which of the Faculties of this city, "opened their arms," embraced and graduated the one seceding student who did find his way to New Orleans? Or does not the Review think that a Faculty who "were opposed to the proceeding" would only have been acting consistently in declining to admit the seceder?

Would it not be well for the Review, since it aspires to writing a history of the secession movement, and since history is worse than flat, if falsified, to send special messengers on to the various cities it has named, and collect at least a few substantial facts? Its present position is a most unenviable one, for all impartial, truth-loving readers (if it ever does publish the facts) are sure to condemn its course.

The Review has said in its January number that letters and telegraphic dispatches were read at the meeting in Philadelphia, Dec. 20th, from the Deans of the Medical Colleges of New Orleans. As far as the New Orleans School of Medicine is concerned, this is untrue. If the Review is its own authority for the statement, it must now show the evidence. If it prints such statements on "vague rumors," it evinces a disregard for others which admits of an interpretation by no means flattering to itself.

Once more we say, we do not shed ink to excuse the New Orleans School of Medicine for what she has done. She has acted openly; we think that she has acted properly; and she would act again in the same manner. She will never tacitly sanction an act of her pupils to which she is even indirectly opposed; she will do before the whole world that which she will do in New Orleans; she will truckle to no man, nor to any man's reputation ; and while she is ever ready to meet the "open foe," she contemns the little mole that, under the earth and in the dark, vainly struggles to sap her deep laid foundation.

We have lived long enough in this world, not to be surprised at any of the tricks of men whose vocation it is to play second fiddles ; but we *are* surprised, that a man deservedly occupying the high position assigned the senior editor of the North American Medico Chirurgical Review, Professor Samuel D. Gross, would for one moment allow the pages of his journal to be sullied with matter which may even possibly result in injury to those directly and indirectly, and, as we have clearly shown, unjustly, assailed.

CLERICAL CREDULITY *vs.* CHEMICAL SCIENCE.—The credulousness of the clergy not unfrequently places them in an attitude of antagonism to the medical profession. This is oftenest witnessed in their advocacy of quackery. But lately an instance has occurred in which several clergymen have arrayed themselves against the application of chemistry to the ends of justice. In the case of Stephens, recently executed in New York, for the poisoning of his wife, the proof of his guilt was afforded by the detection of arsenic in abundance in the body of the murdered woman a year after burial. The investigation was conducted by Prof. Doremus with consummate skill, and the result was not only eminently creditable to chemical science, but should be a subject of congratulation, in so far as it is desirable that henious crimes should meet with just punishment. The murderer, however, died, protesting his innocence, and his clerical comforters deem it their duty to appear in the public prints and assert their belief that he was not guilty of the crime for which he was executed. This is virtually a protest against the validity of the evidence afforded by chemical science, in such cases, and were it to exert the effect intended it would tend to prostrate the ends of justice in similar cases. Fortunately, however, other circumstances establish conclusively that the miserable criminal died with a lie upon his lips, notwithstanding he succeeded in convincing his clerical friends of the sincerity of his religious professions. It appears that shortly prior to his execution, he contrived with a fellow prisoner, also under sentence of death, a plan to escape by murdering his keepers. Through the assistance of his friends he had provided himself with one loaded revolver, and had supplied his accomplice with another. His accomplice betrays him, and he is prevented from carrying out his infernal design. He denies the fact of his having arms, when about to be searched, and when they are actually concealed about his person. He denies the plan to endeavor to effect his escape after he is discovered, and persists in this denial to the last. Horrible as is the thought of a man who is about to be launched into eternity, devoting his last moments to prayers and perjury, it may be considered as proivdential that the conclusive evidence of his falsehood, with respect to the desperate means of escape, stamps his protestations of innocence of his wife's death as equally false, and renders powerless the efforts of his clergymen to excite a public feeling of distrust as to the evidence on which he was convicted. This, however, does not make any the less censurable the course which these clergymen saw fit to pursue with regard to the matter. It is a painful spectacle of injudicious, if not criminal credulousness and assumption. We say this with all due respect to the profession which should not, of course, be held responsible for the unworthy conduct of certain of its members.

UNION MEDICINE.—Among the pamphlets recently received is one entitled, "Valedictory Address to the Anatomical Class of the Philadelphia School of Anatomy, delivered on Friday evening, Feb. 17, 1860, by D. Hayes Agnew, M. D., Lecturer on Anatomy, Surgeon to the Philadelphia Hospital, etc."

When we opened this pamphlet it was with the expectation of finding a refreshing little essay on Anatomy, which would serve to rest our weary mind, while our office couch was contributing to our physical relief. But, to our surprise, the discourse proves to be neither more nor less than a real Union stump speech, and a biblical defence of the institution of slavery! Were this the place, as a Southern man and a Union man, we should certainly take occasion to express our warm approbation of Dr. A's effort, and we would quote freely from the pages of the pamphlet; but, as a medical journalist, would we be doing justice to those who are subscribers to a medical journal? Like Dr. Agnew we would be wandering far from our sphere, and would deserve the disapprobation of our readers.

Dr. A. is most deservedly a popular teacher of Anatomy in Philadelphia, and from his published list of students we perceive that his main patronage is from the South, 155 of 245 pupils being from slave States. He admits that the late secession movement had its effect on his class, for he says—"When I glance over these seats I discover many faces absent," etc., etc. In a few words Dr. A. is one of the sufferers—he is wounded; and, true to his calling, he is ready with a supposed remedy. But is it a surgical case? We say it is a wound of neither flesh, blood, nor bone. It is neither fracture, dislocation, lacerated, incised nor contused wound—but a regular smash, morally and pecuniarily speaking. Is the remedy appropriate? Shall medicine, politics, and slavery, or freedom, be mixed into one grand hotch-potch for such purposes. Better far, Dr., would it be to leave Philadelphia for the present, and join Caleb Cushing in the good work he has undertaken. He is a bright star moving in a proper sphere, and shedding wholesome light on a benighted community. You have shown yourself by this pamphlet worthy to follow his example. Your speech is lost on the material to which you direct it. Not here, but there, Dr., must you apply the remedy.

THE "SECEDING STUDENTS," AND SOUTHERN MEDICAL STUDENTS IN NORTHERN COLLEGES.—We are glad to be able to put our readers, at last, in possession of the facts in relation to the number of students that left Philadelphia for Southern colleges.

The Maryland and Virginia Medical Journal says, "*two hundred and forty-four* students came on to Richmond from Philadelphia, and since that period (21st), probably one hundred have passed through to take up their studies further South. One hundred and forty have matriculated at the Medical College of Virginia."

In the American Medical Gazette for March, we notice the proceedings of a meeting of the seceding students at Richmond, wherein they declare that two hundred and fifty-seven students left Philadelphia on the 21st of December, and they believe that fifty or seventy-five more left in ten days thereafter. Of the whole number they say that about two hundred and seventy-five were from the Jefferson Medical College, about forty from the University of Pennsylvania, and the remainder from the Pennsylvania College. The difference in the number seceding from the different schools, they attribute to the difference in the numbers of southerners attending each institution.

They say that they believe but one seceder has returned to Philadelphia, and assert that the move they made "has met the cordial and emphatic approbation" of their parents.

A Philadelphia correspondent of the American Medical Gazette says, that of the six hundred and thirty matriculates in the Jefferson Medical College, three hundred and ninety-five are from the slaveholding States, forty-one from the Western free States, one hundred and twenty-one from Pennsylvania, and seventy-three from the North and East. We also observe, that one hundred and twenty-six, of one hundred and seventy graduates in the same school, are from the South.

The New York Herald says, that seventy-seven of the one hundred and thirty-eight graduates in the University of New York are from the South, and of fifty-five graduates in the College of Physicians, of the same city, only one is from a slave State.

CHANGES IN MEDICAL JOURNALS, AND NEW MEDICAL JOURNALS.—The Virginia Medical and Surgical Journal is now issued monthly, under the title of the Maryland and Virginia Medical Journal. Drs. J. B. McCaw, of

Richmond, and W. C. Van Bibber, of Baltimore, are the editors, and not less than twelve of the most eminent medical men in Richmond and Baltimore appear as co-editors. The journal is well sustained, and is always one of our most acceptable exchanges.

The able editors of the Boston Medical and Surgical Journal have retired, and Drs. F. E. Oliver and Calvin Ellis assume their places. The journal is as well conducted as before, and appears quite regularly.

Dr. Trask has retired from the editorial chair of the Pacific Medical and Surgical Journal, and his place is filled by Dr. Charles McCormick, U. S. A. Dr. McCormick was for several years stationed in this city, and was most favorably known to the profession. The "Pacific" will not suffer at his hands.

We have received two numbers of the "Kansas City Medical and Surgical Review," which is edited by Drs. G. M. B. Maughs and T. S. Case. The numbers before us give evidence of zeal in the right direction, and we exchange with pleasure.

We also notice that our exchanges announce the appearance of the Louisville Medical Journal, under the charge of Dr. Thos. W. Colescott.

SENSIBLE DOCTORS.—At a meeting of the Association of Physicians of the Department of the Sonne (France), the following resolutions were passed:

1. "That in charging, the number of visits is not to be considered as sufficient for the estimation of value of services, but that the gravity of the disease, the importance of the operation, the dangers incurred by the physician, and still other circumstances, such as the social

position and fortune, etc., of the patient, should be taken into consideration.

2. "That the period has arrived when physicians should be better remunerated."

SPECIMENS FOR THE MUSEUM OF THE NEW ORLEANS SCHOOL OF MEDICINE.—The Faculty of this school are indebted to their medical friends for a number of valuable specimens presented during the late session. Dr. D. R. Cole, of Texas, has contributed the foot of a negro, a perfect specimen of elephantiasis, and an uterus in state of fibrous degeneration. Dr. Williamson, of Mississippi, sends a jar containing six hundred lumbrici, evacuated by a single patient. Dr. Wm. Hicks, of Mississippi, sends a fine specimen of mole, a history of which we will give our readers. Dr. Grall, of this city, contributes a specimen each of fatty and plastic degeneration of the placenta. Mr. Febver, of this city, contributes a double-headed snake; and Dr. Austin, of the class, contributes the stuffed skin of a double calf which was taken from a cow in Mississippi—the cow having died in labor. Besides these, are a large number of most valuable specimens of diseased organs collected by Professor Flint and others from that inexhaustible storehouse—the Charity Hospital.

Once more we appeal to our friends to present the Museum of the New Orleans School of Medicine with all the specimens they may meet with in their professional career. A few specimens shut up in the office of one man are lost to the world; while, if all contribute to the formation of one grand collection, to which all can have the freest access, the greatest good will be insured. It is the ambition of this Faculty to have the finest collection of natural specimens in the world.

MEDICAL SCHOOL STATISTICS FOR 1859–60.

	Students.	Graduates
Jefferson Medical College	630	170
University of Pennsylvania	515	173
University of New York	411	138
University of Nashville	401	...
University of Louisiana	401	113
* Medical College of South Carolina	248	...
New Orleans School of Medicine	216	63
College of Physicians and Surgeons, N. York	195	55
Massachusetts Medical College	196	...
Atlanta Medical College	166	50
University of Louisville	130	...
Ohio Medical College	123	...
New York Medical College	75	20
Buffalo Medical College	70	...
Oglethorpe Medical College, Savannah	60	...
Medical Department of Yale College	..	13
Rush Medical College, Chicago	100	36
Pennsylvania Medical College, Philadelphia	..	37

ANNUAL COMMENCEMENT OF THE NEW ORLEANS SCHOOL OF MEDICINE.—The fourth annual commencement of this institution was held this day, March 29, 1860, at Odd Fellow's Hall. The weather was as fine as could have been desired. A brilliant audience was in attendance. The music discoursed by Prevost's orchestra, from the Opera House, was such as only Prevost can produce. The valedictories of Professor Crawcour and Dr. W. W. Scott, of Miss., were most felicitous—indeed, the exercises passed

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* This mark is to designate those Colleges to which the seceding students attached themselves; thus, of course, increasing the list of matriculates.

off in a manner not only satisfactory, but more than flattering to the friends of the institution. When we say that Odd Fellow's Hall—the largest room in the city—was filled as we are in the habit of seeing it at our well known "classic concerts," the reader at once knows that the New Orleans School of Medicine has a hold on the hearts of our people second to no institution in the State.

The following gentlemen received the degree of M. D.

Hezekiah B. Hearin	Ark.
James F. Mooty	Ga.
Thomas C. Austin	Miss.
George G. Wooten	Texas.
August Gross	La.
Joseph H. Foster	S. C.
Alfred L. Trigg	Ark.
Robt. N. Payne	Miss.
Dennis T. Fitzpatrick	Ala.
James C. Rowan	Texas.
James A. Rawls	Ark.
Young J. Webb	Miss.
George C. Phillips	Miss.
Wm. H. Anderson	Miss.
Lycurgus D. Forbes	Tex.
Gustavus Devron	La.
John P. Richardson	Tenn.
Jeremiah G. Montgomery	Miss.
Robt. F. Madding	Ala.
Spencer C. Harrington	Miss.
Thos. C. Barnett	La.
Monroe Warren	La.
William D. Somers	N. C.
James M. Gaulden	La.
Drury H. Key, La.	La.
John J. Burroughs	Tex.
Wellington W. Scott	Miss.
Chas. C. Thornton	Miss.
Joseph M. Thornhill	Miss.
Frank L. Jewell	La.
James L. Henderson	Miss.
Wm. T. Parker	Miss.
Oliver M. Oldham	Miss
John W. Denton	Ala.
Alfred R. Gourrier	La.
Wm. J. Pierce	Ala.
Franklin G. Pugh	Ark.
Adolphus S. Murphy	Ala.
John T. Bolton	Tex.
John B. Rutherford	Miss.
Dominique Durac	La.
John C. Patterson	N. C.
Robert Middleton	Miss.
John R. McPhail	Tex.
Comer J. Knight	Ala.
Henry Stone	Miss.
Francis L. Wisdom	Ga.
Thomas J. Scott	Ark.
Robert H. Peel	Miss.
Wm. S. Mitchell	La.
Wm. B. Whitehead	Miss.
Wm. H. Frizell	Miss.
Jasper N. Williams	Miss.
Jesse C. Houston	Ala.

Thomas S. Pettey..........Tex.
George S. King ....D. C.
Matthew W. Gage........Miss.
Sanford M. McElroy ......Tenn.
Matthew P. Vernon.........La.
Seth Tatum................La.
M. B. Pollard ....La.
D. H. Thomas ....Tenn.
Dominique De Bordes........La.

Total, 163.

GRADUATES IN PHARMACY.

Wm. H. Laster.............La.
Chas. C. Thornton ....Miss.
Gustavus Devron ....La.

Error.—In our March number the printer makes Dr. Glovinger, of Philadelphia, give *Turpentine* instead of *Lupulin* for Delirium Tremens. We hope none of our readers have been led into practical error thereby.

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EXCERPTA.

URETHRITIS AND VAGENITIS—*Solutions of Chloride of Zinc.*—The *Gazette des Hopitaux* published, some months since, the results of a series of experiments, instituted by Professor Legouest, of the Hospital Val-de-Grace, on the value of chloride of zinc injections in the treatment of urethritis.

The use of chloride of zinc has been tried in 50 patients belonging to this physician's wards; of these cases of urethritis 21 were simple, 12 acute, 17 chronic. All these patients had injected, once every morning, a solution of chloride of zinc at 1-1000 for simple and acute urethritis, and at 1-500 for chronic and obstinate cases. Each patient had retained the liquid injected a space of time varying from three to five minutes. These experiments proved: that injections of chloride of zinc of the above mentioned strength, are not in general painful; that they rarely induce accidents; that they rapidly modify the discharge; that in the greater part of cases of acute urethritis they assuage inflammation and pain; finally, that they succeed less perfectly in simple and benignant discharges than in acute or chronic urethritis.

In this last category especially, injections of chloride of zinc yielded Mr. Legouest really remarkable results.

We waited, before we noticed Mr. Legouest's remarks, for further confirmative facts, when the *Bulletin de Therapeutique* informed us through one of its correspondents, Dr. Gaudriot, that this physician had recommended the medication alluded to twenty-five years since. Mr. Gaudriot has done better than moot a question of priority; he proves that solutions of chloride of zinc are not beneficial in urethral blennorrhagia only, but that they are likewise very efficacious in vaginitis. The following are Dr. Goudriot's formulas for both these diseases:

SOLUTION FOR INJECTIONS.

℞.—Liq. zinci chloridi	24 to 36 min.
Aq. destillatæ	3 ℥

Shake and filter.

Two or three injections to be performed daily. The syringe to be used should be provided with a bulbous extremity, and a very small quantity of fluid should be employed—the disease in its incipient stage occupying the fossa navicularis.

FOR A VAGINAL SUPPOSITORY.

℞.—Liq. zinci chloridi	5 min.
Morphiæ sulphatis	½ gr.

Thicken to a proper consistency with 2 dr. of the following:

℞.—Mucilaginis accaciæ	6 parts.
Sacchari pulveris	5 "
Amyli	3 "

Mix with care and mould a hollow suppository not more than one line in thickness. One suppository is inserted every day, and subsequently every alternate day.

A New Treatment for Gout and Rheumatism.—In a report to the Academy of Medicine, M. Bouillaud describes the treatment proposed by Dr. Lecalve, for gout and rheumatism—two diseases which that gentleman conceives to be nearly akin, and which should therefore be considered jointly.

The syrup and topical application in which Mr. Lecalve's treatment principally consists are prepared as follows. For the syrup:

℞.—Extr. spirit aconitæ	aa. 8 gr.
— digitalis	
— menth. pip	
Extr. aq. Periscariæ	16 gr.
Aq. destill	q. s.
Ut fiat solutio.	
Syrupi gummi acaciæ	10 ℥

For a syrup of which a teaspoonful should be taken three times a day in a glass of gum and water.

For the topical application:

℞.—Tinct. hederæ	aa. 2½ ℥
— scillæ	
— menth. pip.	
— belladonæ	2 ℥
M.	

A compress impregnated with this fluid should be applied to the seat of pain.

Mr. Bouillaud, in reporting on Mr. Lecalve's communication, merely indicated, without expressing any approval. a method of empirical treatment proposed for diseases, one of which, at least, rheumatism, is, in the opinion of the learned professor, essentially of inflammatory nature, and requires an energetic antiphlogistic treatment, for the purpose of averting cardiac complications.

EXHAUSTION AFTER SUCKLING.—Protracted suckling, especially when the supply of milk is scanty, is often followed by extreme exhaustion and debility; with the presence, occasionally, of various anomalous symptoms. A young woman, aged 20, the mother of two children, is now convalescent, in St. Bartholomew's Hospital, after an attack of this kind associated with diarrhœa. She suckled her youngest child for seven months, although the breasts were actually empty. She gradually became much exhausted; she had fits of shivering, with cold sweats at night. Some six weeks before admission, diarrhœa set in, and remained persistent; it stopped two or three times and recurred, and thus assumed an intermittent character. She was ordered four ounces of wine and suitable nourishment, and an aromatic draught containing eight minims of tincture of opium. This had the effect of completely checking the diarrhœa. She has begun to gain flesh, her strength is returning, and she looks quite a different person. She had dysmenorrhœa on November 1st, but it has for the present disappeared.

We select this from a number of instances to illustrate the folly, on the part of mothers, of persisting to suckle their offspring when their breasts have seized to secrete milk. Many such persons complain, amongst other ailments, of weakness of sight, and, in some instances, temporary amaurosis.—*Lancet*, *Dec.* 3, 1859.

NOVEL TREATMENT OF DIABETES.—Dr. P. H. Cabell, of Selma, Alabama, in an article in the *Maryland and Virginia Medical Journal*, gives the following account of the successful treatment of a case of diabetes:

The patient, a negro woman, aged 30 years, suffered with the usual symptoms of diabetes—thirst, great debility, progressive emaciation, and passing large quantities of urine. By the various tests, the urine was found to contain sugar.

The remedy was *her own saccharine urine*, of which she was ordered to drink all that she passed! The woman was cured by this remedy, no other being used. In eleven weeks, the specific gravity of the urine was lowered from forty to twenty-six degrees. The woman stated that the urine at first was "not very disagreeable," being slightly acid and sweat, "*like lemonade*," but as she got better she found it "*a bitter dose*."

Knowing that sugar had been used with reported success, Dr. Cabell thought that glucose might act better than cane sugar, and that the glucose prepared in the body might, from some peculiar combination or mixture with the urinary salts, be a compound that would so modify the tissues, organs, and secretions, as to allow them to return to a healthy standard.

No other theory is given for the action of this novel remedy, and it is believed the practice will not find favor with the profession. It would be difficult to find many patients who would take the dose with the same relish as the woman in the case cited.—*Med. and Surg. Reporter.*

On the Local Employment of Chloroform in the Reduction of Dislocations—*By M. Orliac.* (*Moniteur des Sciences Médicales*, 1859. *No.* 27.)—M. Orliac, a French provincial practitioner, relates two cases of recent dislocation of the shoulder, in which rapid and painless reduction was accomplished. This result he attributes to having surrounded the shoulder with, and placed in the axilla compresses imbibed with ten or twelve grammes of chloroform, these being applied two or three minutes prior to, and during the attempt at reduction. In this way, he observers, assistants may be dispensed with (an important matter in country practice), and pain be prevented, without any danger being incurred.

Contributions to the Etiology and Treatment of Hemicrania—*By Merz.*—The author made a practically important observation, that hemicrania may be relieved by temporary compression of the common carotid artery of the side affected against the cervical vertebra. The time the pressure should be continued in order to be beneficial, should be at least fifteen minutes. The cause of this relief is due to lessening the circulation at the base of the cranium. In three fatal cases he observed these vessels to be aneurismally enlarged. This increased size of the vessels may be present without any interference with the function of the brain in normal blood pressure, but when this is increased it induces congestion of the circulation of the brain, with its consequences. The author sees the analogue to this condition in the increased flow of blood to the medulla oblongata in epilepsy, as observed by Schröder van der Kolk. But, on the other hand, he is far from recognizing this as the only cause of hemicrania.

The pressure can either be made with the thumb, or, if necessary to be kept up any length of time, with a truss-like compress ; the two points of pressure being the back of the neck, and over the carotid artery where it lies under the inner border of the sterno-cleido-mastoid muscle. Twenty-four cases in which this method was successful, are its recommendation.—*Aerzliche Miith. aus Baden and Schmidt's Jahrb.* 1859.

MORTALITY IN TRADES AND PROFESSIONS—*Shocking Picture of the White Slaves in England.*—In the current number of the *Edinburgh Review* we find a very interesting article on the effect of the various industrial professions in England upon the health and longevity of those engaged in them, which gives at the same time a picture of the condition of hundreds of thousands of the working classes of England which, if they were only negroes and some thousands of miles away would excite the special horror of all the dutchesses and antiquated lords in the realm. The article informs us that the grinders of Sheffield cutlery suffer so much injury from the constant inhalation of the particles of steel and of silicious grit that the average duration of life among them is twenty-nine years! Less than half the scripture period alloted to the duration of human life. The amount of this dust given off in the process of grinding cutlery may be imagined, when it is stated that a dozen razors, weighing two pounds four ounces, lose, in grinding, five ounces, and the stone itself, seven inches in diameter, is reduced to six.

In the rough momenclature of the trade, the disease which thus early destroys the fashioner of forks and needles is termed the *grinder's rot*. The lung, when examined after death, looks as though it had been dipped in ink, and the texture, instead of exhibiting the usual spongy character of that organ when in health, cuts like a piece of india-rubber. The color and the solidification of the dry grinder's lung is owing to the chronic inflammation to which it has been subjected by the presence, from an early age, of irritating particles of steel and stone within its finest air-passages. But why dry grain at all, the reader will involuntarily exclaim, if the wages of the occupation are death? The grinder replies that there are certain operations which cannot be done on the wet stone; giving the rounded back to razors, technically called "humping," and the rounded side to scissors are quoted as examples. Then again, we may ask, where is the necessity for this rounded form—would the shaver on a cold morning care a jot whether his razor had a round or a square back? Would the lady, as she manipulated her lace-work with her scissors hesitate to accept a three-sided scissor's leg in place of a half round one, if she knew that the difference involved the life of a fellow-creature? Yet such trifling difference as these, between round and flat, stand in the way of the health or misery of an entire class of workers.

But the most revolting picture of the wholesale physical deterioration of masses of men, in which a life of unnatural toil, that twists the sinews until the individual is distorted out of all semblance of humanity, is terminated by a premature death, is that given of the miners—a proportion of which we here reproduce.

The Miners of England.—There are at present upwards of 300,000 human beings acting the part of gnomes for the good of the community at large, entering day by day into the bowels of the earth, and emerging in the evening. Of human life they see as little as the train of black ants we watch emerging from their holes in the ground. Yet the miner is the industrial Atlas of England. Without the coal and iron, the copper and the tin, they toilfully evoke from vast depths, England would be but a third rate power.

Let us take the collier, for example. In many pits in the west of England the seams of coal are not more than twenty or twenty-five inches in thickness; and inasmuch as the object of the worker is to remove the coal with as little as possible of the surrounding soil, he often drives his working to a considerable distance through an aperture not more than, and often not so much as, two feet high. If our adult male reader will condescend to squat himself on the floor, *a la Turque*, say, under the dining table, for instance, and then picture to himself the inconvenience of picking with an axe the under side of the table for twelve hours, he will obtain some slight idea of the muscular knot in to which the poor collier has to tie himself for the whole term of his working life, having to use violent exercise throughout. Can it be wondered at that under such circumstances, the Apollo-like form of man becomes permanently twisted and bent, like the gnarled root of an oak that has been doubled up in the fissure of some rock? If we look at a collier we see instantly that his back is curved, his legs bowed, and the extensor muscles of his calves withered through long disease. He has knotted himself so long that the erect position of the race becomes a punishment to him. It is credibly related that a number of colliers having been sentenced to imprisonment in Wakefield jail, with hard labor, the only complaint they made was, that they were obliged, whilst at work, to keep the ordinary posture of rational creatures.

But confined space is only one of the many evil conditions under which they labor. In the majority of cases the collier works in foul air; for, notwithstanding all the official inspection, the ventilation of mines is still execrable. The fire-damp either blasts him into a cinder, or the choke-damp noiselessly blots out his life. However good, moreover, the general system of ventilation in a mine, unforeseen accidents will happen at any moment. The pick of the collier strikes into the gallery of an old pit, where carbonic acid gas has been gathering perhaps for a century; and the poisoned air rushes in and does its work in an instant: or a sudden invasion of carburetted hydrogen disengaged by a fall of a mass of coal, meets the miner, who is working, perhaps, imprudently, with a naked candle, and an explosion follows, which crowds the pit mouth with a wailing multitude of newly made widows and orphans.

Upwards of 1,000 lives are annually lost, principally through these causes, and not less than 10,000 accidents in the same period testify to the dangerous nature of the miner's occupation, notwithstanding the strict government inspection. It is humiliating to know that England is yet far behind continental nations in her methods of preventing these dreadful catastrophies. Mr. Mackworth, in his lecture at the Society of Arts stated that the mortality from accidents in the coal mines was—

	KILLED.		PERSONS.	
Prussia	1.89	per	1,000	per annum.
Belgium	2.8	"	1,000	"
England	4.5	"	1,000	"
Staffordshire	7.3	"	1,000	"

This comparison, so humiliating to England, cannot be explained by the superior adventure of our countrymen, inasmuch as the production of coal in Belgium is half as much again per acre of the coal-field as in England.

In addition to his cramped condition, whilst at work, his supply of oxygen is small; for in all probability the air supplied to him has to circulate many miles through the mine, and to pass over the excrementitious deposits of man and horse, and the decaying wood work of the mine, ere it finally reaches him, in enfeebled streams, in his solitary working dell. Long deprivation of solar light, again, tends to impoverish his blood, to blanch him, in short, like vegetable products similarly deprived of the light of the day. It is through the lungs, however, that the health of the miner is principally attacked. The air of a coal mine—such as it is—holds a vast amount of coal dust in mechanical suspension, and this, as a matter of course, is constantly passing into the lungs of the miner. The proof of this is the so-called "black spit" of the collier, which, on being subjected to the microscope, is found to consist of mucus, filled with finely divided particles of coal. The permanent inhalation of such an atmosphere results in what is termed the "black lung." The breathing apparatus of the collier becomes clogged, in short with coal dust, and after death it has the appearance of being dipped in ink. A writer, who has lately investigated this singular pathological condition, thus gives his experience of two post-mortem examinations:

"In each case the black treacly fluid obtained by thus cutting the various portions of the lung (more especially the posterior and inferior portion of the lower lobes), and by slitting up the bronchial tubes, was evaporated to dryness, and the residuum being broken up and subjected to a red heat in a porcelain tube retort, behaved precisely as coal under similar circumstances, *i. e.* it evolved a smoke-like gaseous product, which, on being slightly condensed, deposited hydrosulphate of ammonium and coal tar, and being thus purified, burnt in all respects like the well-known compounds of the two carbides of hydrogen (common gas)."

When mines are driven to any considerable depth the temperature proportionably increases, and 80 degrees of Fahrenheit is a common temperature at the end of workings all the year round. After exposure to this oppressive atmosphere during the whole day, the collier perhaps suddenly emerges into the open air at the pit's mouth, vitally depressed by his prolonged exertion, when the bitter wind is shaving the surface of the earth at a temperature much below the freezing point.

The metalliferous mines, such as the tin and copper mines of Cornwall, and lead mines of Derbyshire, are in pretty much the same pestiferous condition, but in one particular they are still more destructive of life than coal mines. In the latter the tired workman is lifted from the depths of the mines to the surface by a rope. The Cornwall miner, on the other hand, has to carry his exhausted body in some cases thousands of feet up a series of steep ladders to the mouth of the mine. It has been estimated that many miners have thus to make an exertion every night equal to climbing to the summit of Cader Idris, and this is an up-cast shaft used for the extraction of the foul air!—*N. Y. Mentor.*

METHOD OF PRESERVING VACCINE LYMPH.*—*Communi-*

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* Exposition of a Method of Preserving Vaccine Lymph, Fluid and Active; with Hints for the more Efficient Performance of Public Vaccination. By William Husband, M. D., Fellow of the Royal College of Surgeons, of Edinburgh, and one of the Medical Officers of the Royal Public Dispensary and Vaccine Institution, Edinburgh.

cated for the Boston Medical and Surgical Journal.—Having received this handsome pamphlet from the author, and knowing from personal experience that the method therein described possesses most decided advantages, we transcribe for the pages of the Journal some of its most striking and important passages; believing that at a season when this subject has been interesting our readers, any suggestion which will enable them at all times to keep their own supply of lymph, so that they need never beg it of their neighbors, or disoblige those who apply to them for vaccination, will be, after the experience which most of us have lately had, acceptable to all. We therefore propose to show that this may be accomplished by the use of capillary tubes. It may be well to state that we are not alone in this opinion, for an inquiry made in the month of August last, as to their value, by a commission of her Majesty's Privy Council, was followed by a circular from that body, recommending their general adoption by public vaccinators throughout the Kingdom.

To properly understand this manner of preserving lymph, it is necessary to know that there are three different "tube methods" which have been in use at various times, viz: that of M. Bretonneau, consisting of a fusiform tube, one half to three quarters of an inch long; that of M. Giraud, wherein the tubes, two and a half to three inches long, terminated in a bulb of one third to one half an inch in diameter; and the third, invented in 1847 by Dr. Husband, of Edinburgh. As the tubes of M. Bretonneau are charged with great difficulty, and, according to those who have used them in France, do not preserve the lymph for any length of time, and those of M. Giraud been abandoned on account of their extreme fragility, whilst Dr. Husband's are declared to "furnish beyond comparison the easiest and most expeditious means of taking lymph for present or for future use," we shall, perhaps at the expenditure of considerable space, describe the form, manner of charging, sealing and using these tubes.

Dr. Husband's capillary tube, then, is a simple straight tube, of sufficient tenuity to seal instantaneously at the flame of a candle; large enough to contain as much lympth as is sufficient for one vaccination; long enough to admit of both ends being sealed without subjecting the charge to the heat of the flame; and strong enough not to break easily in the mere handling. The following is the mean of several measurements of tubes, fulfilling the above conditions: length, 2$\frac{3}{4}$ inches; diameter, 1$\frac{1}{28}$ of an inch; thickness of wall, $\frac{1}{200}$ of an inch.

The tube, held in a position more or less inclined to the horizontal, is charged by applying one end (the straight end, if they be not both straight) to the exuding lymph of a punctured vesicle, which enters instantly by capillary attraction, and as much should be allowed to enter as will occupy from about one seventh to one half the length of the tube, according as its capacity is greater or less.

As it is in the proper sealing of these tubes that the most difficulty is experienced by the novice in their use, we quote Dr. Husband's detailed description in full.

> "Make the lymph gravitate towards the middle, by holding the tube vertically, and, if necessary, giving it a few slight shocks, by striking the wrist on the arm or table. Then seal the end by which the lymph entered, by applying it to the surface of the flame of a candle. It melts over, and is sealed immediately. Proceed with the other end in the same way, but first plunge it suddenly—say, half an inch—into the flame, and as quickly withdraw it, till it touches the surface as before, and hold

it there till it, too, melts over. If it be applied to the surface of the flame without being first plunged into it, it melts, no doubt, and gets sealed; but before you have time to complete the process, and while the glass is still soft, the heated air within the tube expands, and forms a minute bulb, which, from its tenuity, either gives way on the instant, rendering it necessary for you to break off the end, and begin anew; or, what is worse, remains entire for the time, only to break afterwards by the slightest touch.

* * * * * *

"It should be observed, that in no case is a tube to be laid down until the lymph has been made to pass through the middle of it, for the fluid concretes quickly about the orifice, and you cannot afterwards detach it, without breaking off the end, and the concrete portion of lymph with it. But if it be at once made to pass away from the orifice, by holding the tube vertically, you may lay the charge down, and take half a dozen or more in the same way before sealing them; only, if you delay the sealing process too long, more than five minutes perhaps (a delay which need never happen), the lymph within the tube is apt, from evaporation, to become adherent, especially if it be more than ordinarily viscid, or if the calibre of the tube be unusually small, and it cannot afterwads be blown out, when you come to use it.

"Before concluding these directions, let me observe farther, that if the lymph do not exude freely the tube may require to be drawn several times more or less obliquely across the surface of the vesicle, or cluster of vesicles, until a sufficient charge has entered; but generally if the exudation be copious, and a drop of some size have formed before you begin to take your supply, the orifice of the tube need not, indeed ought not, to touch the surface, but is merely to be dipped into the clear fluid; and one may commonly in this manner, from one infant's arm, charge five or six tubes in almost as many seconds, with perfectly pure and limpid lymph, which shall contain neither epitheliel scales, nor pus globules, nor blood discs, and is therefore, so far, in the best possible condition for preservation."

To use the lymph thus preserved, the sealed ends of the tube are broken off, and the fluid contents blown out upon the point of a lancet.

The tubes may be sent by post, packed in a bit of pine wood, having a shallow groove in which they are laid with a few filaments of cotton, and then covered with another thin piece of the same. Such a package resists the post office stamp perfectly.

"That lymph so preserved possesses *a permanent value* —in other words, that it retains its virtue unimpaired for months and years—is now well ascertained. It is a fact admitted on all hands by the members of the medical profession in Edinburgh, and one to the truth of which many of their number are ready to testify from their own observation.

"I had an opportunity, in the month of August last, of showing to Mr. Ceely, several perfectly succesful vaccinations with lymph which had been hermetically sealed up for five, six, and seven years. Mr. Ceely saw in one case the cicatrix, from which the crust had just dropped, of a vescicle produced by lymph, dated April 17, 1852—that is, seven years and three months old. He also saw vesicles in progress towards maturity, which had been produced, in two cases, from lymph dated February 2, 1853, or six and a half years old. In another case, the lymph was dated May 13, 1854, and was therefore five years and three months old; in two other cases, it was dated March, 1858, and was therefore one year and seven months old; in another, September, 1858, and therefore eleven months old."

"Here were seven successful vaccinations in different stages of progress, in which the lymph employed was from one to seven years old. Such an occurrence is, I suppose, unexampled in the history of vaccination. Solitary instances of the kind have happened before, and been cited as marvels. But a succession of such, occurring within a few days—most of them, indeed, contemporaneously—may well fix our attention, not surely as something extraordinary and to be wondered at and forgotten, but as pointing us to results of great practical importance."

Dr. Husband also gives a table of 341 vaccinations of infants, performed between the years 1853 and 1856, with lymph which had been sealed up for various lengths of time, from one day to two years and a half, and exposed, for the sake of experiment, during several hours daily for months together, to a temperature of from 80 deg. to 90 deg. of Fahrenheit. Of these vaccinations, 41 failed, the failures being actually less with the oldest lymph. Thus, of 56 vaccinations with that which was from one to four weeks old, 10 cases failed; with 53 vaccinations where it was from six to twelve months months old, 4 cases failed; in 52 vaccinations with lymph from one to eight days old, 7 cases failed; and in 35 where it was from one to three years old, 3 failed. This table brings out the remarkable fact "that the activity of the lymph, as indicated by the probability of producing with it perfectly normal vescicles, *is not affected by the length of time it has been kept*, at least within the ample limit of two years and a half."

Provided with a capital stock of such lymph, the physician is self-dependent, and at all times

> "* * * in circumstances to vaccinate at a moment's notice, as occasion or necessity may require. He can consult his own convenience and that of his patients: he can choose his own time for vaccinating, and avail himself of opportunities for so doing wherever he may happen to be. When he gets a supply of fresh lymph, he need be in no haste to use it, for it will be as fresh in his hands twelve months hence as it is to-day. If an epidemic of smallpox break out he is prepared for the emergency. He saves the lives of the unvaccinated, whom he finds exposed to the contagion, by the instant application of

the antidote. He can offer the protection of revaccination to the vaccinated, and follow up his offer by the immediate performance of the operation."

With regard to our personal use of these tubes we would say, that having received some from Dr. Husband in July last, the lymph contained in them, after a voyage across the Atlantic in the mail bag, and used in the hottest weather, was perfectly satisfactory. Those which we have charged subsequently have been also in all respects satisfactory. For preserving lymph for use in summer, which is generally so difficult, we believe them invaluable. Their power to accomplish this is strikingly shown in the following quotation :

"Several years ago an eminent missionary, the Rev. H. M. Waddell, carried some tubes with which I furnished him, to Old Calabar, on the west coast of Africa, and introduced vaccination there for the first time, after numerous ineffectual attempts had been made to introduce it by means of dry lymph. This fact is interesting, from the circumstance that Calabar is situated in north latitude 5 deg.—that is 11 deg. nearer the equator than St. Louis on the Sénégal, of which the French author formerly quoted, says; 'Rien de plus difficile que de conserver le vaccin aux antilles et au Sénégal. Il est rare que celui qui vient d'Europe y réussisse ;' and eight degrees further south than Bathurst on the Gambia, where, for years after the establishment of the colony, repeated attempts were made ,without success, to introduce vaccination by lymph sent out from England."

We should be glad if we could quote further from this pamphlet, and place before our readers others of the striking facts stated by Dr. Husband, as well as the general observations on vaccination and vaccina contained in its pages. It would convince them that the author is master of his subject, and entitled to great praise for what he has accomplished, as well as for the modesty with which he presents his method to the public. We may add, moreover, that a medical friend, who has lately seen Dr. Husband vaccinate, speaks in the very highest terms of the ease, celerity and constant success of the method in his hands. He fully deserves the already very extensive honor and reputation he has acquired.—*Boston Journal.*

DIPHTHERIA AT CROWLE, IN LINCOLNSHIRE. *By Henry W. T. Ellis, M.R.C.S.E.*, Crowle.—In a recent leader in the *Lancet*, communications were invited from medical practitioners on the subject of diphtheria. Now, as it has fallen to my lot, in conjunction with my brother, Mr. P. S. Ellis, to see a great deal of the disease, I beg to forward a statement and summary of the cases which have come under our daily observation for the last fifteen months.

Introductory to any report on the prevalence of diphtheria in Crowle and the neighboring villages, it is, perhaps, necessary to premise, that the district generally is below the level of the rivers Trent and Ouse at high water; and that, 1800 years ago, it formed part of an extensive forest in which the Britons took refuge from their Roman invaders, and which was subequently destroyed by the latter. In the course of centuries, a peat moor became formed, varying in depth from one to twenty feet; but this is now to a great extent covered with warp, the alluvial deposit of the rivers above mentioned. The land is well drained, very fertile, and in the highest state of cultivation, the inhabitants being chiefly occupied in agriculture, and the first process of the manufacture of flax, here called line.

Crowle, with the hamlet of Ealand, containing a population of about 2,500, is situated on the western and southern declivity of some rising ground called Crownhill. As regards its geological formation, the subsoil consists of clay, sand, waterstone (a sort of crumbling rock), gypsum, and gravel of calcareous or magnesian limestone. There is a good and constant supply of water, derived from wells ten to thirty feet deep, rather hard, and, in some places, moory, silty, and undrinkable. The sanitary condition of the place and its inhabitants, as regards drainage, cleanliness, ventilation, and over-crowding, is almost unexceptionable, the people not being of the poorest.

The other villages in which diphtheria has been fearfully prevalent, and the cases in which were almost entirely attended by my brother, are Easthoft, population 550; Luddington, population 600; and Garthorpe, population 520; all on the banks of the old river Don, now partially filled up, but in places a reservoir of stagnant water. Althorpe, population 320; Keadby, population 440; and Amcotts, population 420, on the Trent, although not exempt from the disease, have been but lightly visited; but in them, as well as in Addingfleet, there have been the strongest evidence of the contagious nature of the complaint. Taking the district generally, it is not now subject to ague, except amongst the Irish immigrants. Autumnal diarrhœa frequently prevails; fever occasionally; calculous complaints are common; bronchocele rare; scarlatina, with the exception of a few cases very recently (October), has not been seen for some years.

The present epidemic has prevailed to a great extent, and in a severe form since the second week in September, 1858, and the mortality has been large; latterly, however, the cases have decreased, though not a day passes without some fresh ones. Altogether there have been 564 attacked and 78 deaths. The first three cases (children) occurred at an isolated farm house, about two miles from Crowle; these all succumbed in twelve days: after the most diligent research they could not be traced to communication with others. The next, the child of a respectable ironmonger, took place four days afterwards in Crowle, still without any evidence of infection. Sporadic cases kept happening until Christmas, when the complaint began to assume an epidemic form. At the same time adenitis or inflammation of the glands of the neck, erythematous sore throat, and tonsillitis, also prevailed. Both sexes, all ages, and classes have been the subjects of the disease; and in many instances it set in with great severity. The laboring population, small farmers, tradespeople, and children under twelve years of age were the principal sufferers, an infant of seven months being the youngest attacked. Amongst my brother's patients, a clergyman, with his wife and daughter, took the disease; a little girl of my own was also the subject of it; and a draper lost his wife and both children from it.

With respect to the communicability of the disease from person to person there have been the clearest and most irrefragable proofs, the period of incubation varying from three or four days to nearly a month. There have been several instances of a recurrence of the complaint—the second attack being occasionally fatal. Horses have also been affected from a similar disease, and many have died from it.

Diphtheria has been invariably characterized by the presence of a white, or slightly yellowish exudation on the tonsils, uvula, velum, or pharynx; in severe cases appearing also on the posterior nares, larynx, trachea, and bronchial tubes. The membrane has been of varied consistence and thickness, according to the part affected. On the tonsils and velum it seemed to consist of an increased and altered secretion of the mucus peculiar to the part, composed as it is, of cells, corpuscles, and epithelial scales, and this, in some instances, was quickly reproduced after its removal; lower down, as discharged by vomiting or expectoration, it was evidently fibrinous, forming casts of the trachea, and its bifurcation into the bronchi. In many cases the removal of the exudation caused abrasion of the surface, with bleeding points; and the membrane itself, especially from the trachea, displayed corpuscles in patches, and in one instance, as examined by the microscope, a distinct fungoid growth in a state of putrefaction; the fœtor was generally very offensive. Preceding the appearance of the exudation for two or three days or more, the affected parts were swoolen, highly congested, generally of a bright red color, but sometimes livid; frequently there was a good deal of œdema of the tonsils and uvular, seeming as if infiltrated with serum, and this appearance continued after the patch had formed. Convulsions in several cases preceded, in one accompanied, and in two followed, the removal of the disease; death ensued in the last two instances, an adult and his child. The complaint was generally ushered in by much constitutional disturbance, as evidenced by febrile excitement, vomiting and headache, with suffusion of the eyes, followed by symptoms of depression and loathing of food. In three cases an eruption of bright red spots or dots, small, distinct, not elevated or vesicular, accompanied the disease, and remained out three or four days; there was no desquamation. In one person, a married woman, menorrhagia ensued, and epistaxis in several, six of the latter being fatal. During the progress of the disease, the temperature of the skin became generally low, except in dyspnœal agony, when there was, of course, sweating. In nearly all the most severe cases there was profuse and fœtid muco-purulent discharge from the throat and nostrils; the submaxillary glands were frequently engorged, and in one instance suppuration followed. The urine was occasionally albuminous, but not generally. Diarrhœa proved fatal in four infants. Ulceration not unfrequently followed the removal of the exudation, and in one instance (a patient of my brother) an aperture remained in the left anterior pillar of the vellum, sufficiently large to admit a quill, and causing much inconvenience. Regurgitation through the nostrils, from paralysis of the soft palate, was a frequent consequence as well as altered voice. The nervous and muscular systems were much affected, anæmia, debility, and loss of power frequently occurring. Diplopia took place in five instances; complete paraplegia in two, the latter yielding to strychnine. Death generally happened from exhaustion or asphyxia, croupal symptoms often supervening. There has been no instance here of the disease being communicated by accidental inoculation, or the contact of the morbid secretion with a mucous or abraded surface; but in one case the exudation showed itself on the neck of a child blistered by the application of liquor ammonia, and also in a strumous girl with a scald on the foot.

As regards the treatment of the epidemic it has essentially consisted in the use of chlorates—the tincture of the sesqui-chloride of iron, chlorate of potash, and hydrochloric acid, with gargles of the two last named. In many cases a strong solution of the nitrate of silver, a drachm to the ounce was applied to the fauces by means of a sponge. Occasionally sulphate of copper emetics were given with advantage, as also ipecacuanha. Turpentine, internally, was tried in some, but scarcely with any good result. Gentle aperients were generally premised, and exudation, if possible, removed by a spoon, or the polypus forceps. In cases of debility preparations of iron and quinine were administered. And throughout the progress of the disease a liberal and generous diet was enjoined, consisting of broths, beef tea, eggs, milk, wine, porter, and brandy. Tracheotomy was in no instance resorted to. In all the fatal cases, notwithstanding prompt, energetic, and decided means were used the progress of the disease could scarcely, even for a time, be arrested.

P. S.—A very singular fact connected with the progress of the disease in this locality is, with the solitary exception of a child in Crowle, the entire immunity enjoyed by the Irish residents, numbering, probably upwards of three hundred; they are chiefly located in Eastoft and Luddington, and afford almost our only examples of overcrowding, defective sanitary conditions, and inattention to hygiene.

Crowle, Bawtry, Jan., 1860.

Cases of Sudden Delivery.—M. Ammeuille related an interesting case to the Paris Société Médico Pratique, in illustration of the following question: May a primipara of robust frame become delivered of a full timed, well formed infant, and this infant fall into a privy, the mother resorting there simply to satisfy a want? In the present case, a lady, aged 20, in robust health, having become with child by a young man, left her home in the country, and repaired to a Paris lodging-house; and awaiting admission into the Maternity, she had made no preparations for the reception of the child. She was taken ill in the night, and had several motions; and at last, while proceeding towards the vessel, to pass, as she believed, another, the child dropped from her on the carpet. Her intention was, had not a more sudden pain seized her, to have repaired to the privy, into which the child must certainly have dropped. It is obvious, with the mystery of the case and the want of preparation for the child, how easily a charge of infanticide might, in the event of the child's having fallen into the privy, have been brought in such a case. M. Somonot had no doubt that a woman might be delivered of her first child without being aware of it. He knew the case of a lady who, at four o'clock, was walking about her room and laughing, there being no dilatation of the os or other sign of delivery, and who yet, in twenty minutes later, gave birth to a child and the placenta without pain or exclamation. M. Perrin had recently been called to a wonan pregnant of her third child, who, taken first with a violent desire to pass water, and then to evacuate the bowels, passed a child into the utensil. Had the night not been so cold, she would have gone to the privy. There are many such facts on record; but they may be usefully borne in mind when girls are charged with improperly disposing of the fruits of illicit intercourse, and even when accompanying circumstances are suspicious.—*L'Union Med.*

DEATH IN THE NURSERY.—Very dangerous presents are often made to children. It is the peculiar happiness of juveniles to test, in many homely ways, the strength, flavor, and combustibility of whatever toys are placed in their hands. The tendency to apply the tongue to all painted toys affords a temptation which only the strongest minded children can resist; and licking the face of a favorite doll, or the surface of a painted ball appears to afford pleasure which few can forego. Remembering these infantile idiosyncrasies, kind mammas and generous uncles should endeavor to ascertain that such colored toys as they give are not painted in mineral colors. Very serious accidents—if we mistake not, deaths—have occurred from licking the aërial bladders which were recently so popular in the nursery. Many of them were painted with arsenical pigments. A sad accident, which has just occurred at Lyons, points to another favorite toy as a possible source of the most serious misadventure. The *concierge* of the theatre there had presented a box of paints, as a new year's gift, to his son, a boy about ten years of age. The little fellow was highly delighted with his new acquisition, and passed the whole evening in coloring a large portrait of Garibaldi. Most probably he wetted his pencil or his paints with his tongue; for, in the middle of the night he was attacked with a violent colic, and died in a few hours, evidently from poison. In the same way the drastic purgative properties of gamboge are not uncommonly developed to a very unpleasant extent. The unfortunate event above described affords an important caution, which will not, we hope, be lost. *Lancet.*

REINSCH'S TEST FOR ARSENIC.—In experimenting on different solutions of the salts of arsenic by Reinsch's test, it is very important to know that there is a considerable difference in point of time before the copper wire becomes coated with arsenic. The *arseniates* show it almost the instant the liquid boils; whereas the *arsenites*, or more highly oxidised salts, require a longer time and greater degree of concentration before any deposit is obtained. A knowledge of this fact may prevent an erroneous conclusion being drawn as to the presence of arsenic, although it may not be immediately detected.

In combination with chlorates, as proved by Dr. Taylor in Smethurst's case, no deposit is obtained, the arsenic remaining in solution; whilst the copper is dissolved, and imparts a blue color to the liquid.

The *delicacy* of Reinsch's test has been greatly *underrated* by Taylor, Brande and others, who state that arsenic fails to be detected when diluted to 120,000 times its bulk. How such a mistake should occur I cannot imagine; since, in accurate experiments lately made by me, I have detected it at a dilution of 560,000 times; and when at 280,000 times, the layer is so strong as to be fit for sublimation, having a bright steel color; at 560,000 times, however, the deposit is more of a violet color. These experiments were made by dissolving a grain of arsenious acid in a pint of distilled water and diluting from time to time.

Compared with arsenic no deposit of antimony from a solution of tartar emetic took place at either of these points of dilution.—*J. Horsley, F. C. S.—Chem. News, Dec.* 10, 1859.

NEW ORLEANS

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CLINICAL REPORT OF CASES

OBSERVED AT THE CHARITY HOSPITAL.

By AUSTIN FLINT, M. D., Prof. of Clinical Medicine and Medical Pathology, N. O. School of Medicine.

The reports contained in the two preceding numbers of the *Medical News and Hospital Gazette* were written during the progress of the session for 1859-60. This session is now nearly at its close. My recorded clinical observations during the session will supply abundant material for a series of reports, to be continued in successive numbers of the Journal until the commencement of my next term of service. The number of cases of pneumonia treated in my wards, is larger than during the session of 1858-9. These cases will be made the subject of a report so soon as I have leisure to subject them to careful analysis. This report will appear sometime during the summer. My records contain a number of cases of cirrhosis, which I design to analyze when my leisure will permit. For the present and the few succeeding numbers of the Journal, I shall select cases which appear to me to possess particular interest, offering, in connection with the histories, such practical remarks as a reviewal of the histories may suggest.

Writing now, at the close of the session, I desire to express my thanks for the courtesy and coöperation which I have received during the past, or during the previous session, at the hands of the medical officers of the Charity Hospital. Acknowledgements are especially due to my esteemed colleagues, Drs. Fenner, Choppin, Brickell, and Peniston for a cordial invitation to make their wards subservient to clinical observation and instruction; also, to Drs. E. J. Coxe, James Burns, J. F. Bell, Charles H. Jordan, and George Purnell, for the same privilege. To the late assistant surgeon of the hospital, Dr. A. W. Smith, I am under many obligations To the surgeon of the hospital, Dr. J. D. Foster, and the recently elected assistant, Dr. Howell Sprague, I am indebted for promoting, in every way, my clinical pursuits. The resident students of the hospital have laid me under obligations. I am especially indebted to Mr. Profilet for assisting me in recording cases, and to Mr. now Dr. Henry Stone, and Mr. J. J. Holt, who were assigned successively to my wards, for their valuable aid in the dead house.

I have selected, for the present report, a case which may serve as a type of a rare and serious form of pulmonary disease in the adult, viz.: *Capillary Bronchitis.*

Case of Capillary Bronchitis—Death—Post Mortem Appearances.—John Haskell, aged 30, Irishman, laborer, admitted during my morning visit, November 11, 1859. The following is the record made by me an hour after his admission:

The patient is suffering greatly from dyspnœa. The respirations are 40 per minute. The prolabia are somewhat livid. He coughs frequently, and has vomited several times. The matter of expectoration appears to be frothy serum tinged with blood. It presents a peculiar appearance, being thin, not adhesive, frothy, and of a bright, brick-dust red color. It was considerably abundant. It is difficult for him to command breath enough to converse ; he can only utter words disconnectedly. The pulse is 140. The skin is cool.

The patient's distress, and the difficulty of utterance, prevent me from obtaining the previous history. I learn that he was in the hospital a fortnight ago with intermittent fever ; was discharged after a few days, and again returned on account of a relapse. He was discharged a second time only two days ago. The present distressing pulmonary symptoms came on last night, but he had had some cough previously for several days.

On examination of the chest every where, on both sides, the respiratory murmur is replaced by subcrepitant and sonorous rales.

The sulphate of morphia, gr. ss., was administered directly on his admission an hour ago. He is now somewhat less restless than before this remedy was given. Restlessness was marked at the time of his admission, and is so still, although lessened. The expression is anxious.

10½, A. M.—An hour after the foregoing record was made, the patient reports more comfortable, and is more quiet. He doses, but is easily roused. The symptoms, however, in other respects, are not improved. The respirations are 40, and the pulse 140 per minute. There are some tracheal rales. The lips and tongue are palid and slightly livid, the pallor predominating.

The rales over the chest continue. The chest is every where resonant on percussion, except there is slight relative dullness over the lower lobe of the left lung. The rales are more marked in the expiration than in the inspiration. The inspiration is short and spasmodic.

Death occurred at 11, A. M., a little over three hours after his admission.

The thoracic viscera were removed for my inspection, twenty-two hours after death, by Mr. Stone.

The lungs were not collapsed. They were voluminous, like the lungs in cases of emphysema. There was no solidification anywhere. Sanguinolent serum, somewhat frothy, flowed from the cut surfaces in abundance. The bronchial tubes, traced as far as possible, presented, every where, the mucous membrane deeply reddened. No morbid products within the bronchial tubes. Some of the smaller bronchial tubes appear to be dilated. No tubercle. The heart was normal.

Remarks on the Seat, Symptoms, Physical Signs, Diagnosis, and Treatment of Capillary Bronchitis. Cardiac Murmur simulating that from Mitral Regurgitation in this Disease. Relations of the disease to Lobular Pneumonia.— The term *capillary bronchitis*, although an improvement on the *catarrhus senilis*, *perpineumonia notha* and *suffocative catarrh* of the older writers, is a misnomer. It implies that the seat of the inflammation is in the capillary bronchial tubes, which is not correct. The true capillary tubes, in other words, the tubes which ramify within the pulmonary lobules, called also the bronchioles, the terminal branches of the bronchial tree, and the intercellular passages, are affected, together with air cells or vesicles, in pneumouia, but not in capillary bronchitis. The latter is distinguished from ordinary bronchitis by the extension of inflammation into the smaller bronchial subdivisions, but those which take place prior to the ultimate distribution to the lobules.

Ordinary bronchitis affects only the primary subdivisions or larger tubes; in the great majority of cases the inflammation has no tendency to extend into the smaller tubes, but in exceptional instances this occur, and then we have quite a different affection as regards symptoms and danger, for which it would be difficult to find a better name than capillary bronchitis, although this name strictly speaking, is inappropriate.

The reluctance (speaking metaphorically) of bronchial inflammation to pass from the larger to the smaller tubes, furnishes one of the most striking of the many illustrations of conservatism in the natural history of diseases. Ordinary bronchitis is often a trivial, and rarely a serious affection. Capillary bronchitis, on the contrary, when acute, is one of the most fatal of diseases. Grisolle estimates that it carries off one-sixth of adults and seven-eighths of children attacked by it. Happily it is an extremely rare affection. During the last five months but four cases have occurred, within my knowledge, at the Charity Hospital. In three of these the disease has ended fatally. But one of these cases occurred in my ward—the case now reported. Cases may have been received which I did not have the opportunity of seeing, but my attention was invited to the important pulmonary affections in the majority of the hospital wards. It is, however, to be borne in mind that the disease affects children much oftener than adults. It has prevailed to some extent among children in the city during the winter, as I learn from those engaged in family practice, and I have seen a few cases in consultation. My impression is, that it occurs more rarely at the North than at the South, both in children and adults, but I have not sufficient data to speak positively on this point. This disease, like some others, affects by preference the two extremes of life; next to children, aged persons are liable to be attacked by it—hence one of the names formerly applied to it was *catarrhus senilis.* Being an exceptional form of bronchitis, it is apt to occur when the latter prevails as an epidemic, *i. e.*, in connection with influenza, at certain times and places. Here we find an illustration of a fact applicable to different diseases, viz: variations from their fixed laws are more likely to take place when they prevail as epidemics, than when they are developed sporadically.

The infrequency of capillary bronchitis, when the great frequency of ordinary bronchitis is considered, is a remarkable instance of conservatism, because the mucous membrane lining the smaller tubes does not differ essentially, according to the descriptions of anatomists, from the membrane which lines the larger tubes. The apparent difficulty with which bronchitis eventuates in pneumonia, and *vice versa*, is in a measure explained by the differences in structure between the membranes lining the bronchial tubes on the one hand, and, on the other hand, the bronchioles and air vesicles. Clinical observation shows the existence of a pathological law by which inflammation is often restrained from passing from one anatomical tissue to another, however great their proximity to each other. Thus the chances of laryngitis becoming developed in a patient affected with pharyngitis, are exceedingly small, provided the latter affection be not prevalent as an epidemic; so, in a primary pleurisy, the inflammation very rarely, if ever, extends beneath the membrane to the pulmonary parenchyma. It is true that the smaller bronchial tubes differ from the larger, in the fibrous membrane being thinner, the cartilaginous plates less numerous, and the muscular fibres more abundant; but the mucous membrane presents the same kind of epithelium in both situations, and it is supplied with branches from the same vessels. The distinction between the two classes of tubes, as respects the extension of inflammation, suggests the inquiry whether there may not be certain anatomical points of difference which have, as yet, escaped the attention of anatomists.

Why is it that capillary bronchitis differs so immensely from ordinary bronchitis in symptoms and danger? Simply because inflammation in the smaller tubes involves obstruction to the passage of air into and from the bronchioles and vesicles of the pulmonary lobules. This obstruction is due to swelling of the membrane and the presence of mucous secretion in the affected tubes. The air cells contain air, perhaps in larger quantity than in health, but the air is imprisoned in the cells, as in asthma, the cause of obstruction being more persisting than spasm of the bronchial muscular fibres, and hence far more serious than the latter. It is a much graver affection than pneumonia affecting an entire lung, or than pleurisy with the pleural sac filled with liquid, because these latter affections, happily, are usually confined to one side—another illustration of conservatism—while bronchitis is one of the symmetrical diseases, *i. e.*, it affects equally parts situated on each side of the median line.

With the physical conditions belonging to this disease distinctly before the mind's eye, and a clear appreciation of the mechanism by which the respiratory function is compromised and life destroyed by it, the symptoms and signs involved in the diagnosis are at once intelligible. Dyspnœa, lividity, restlessness, and anxiety of expression are incident to its suffocative effects. Apnœa is produced precisely as when the larynx or trachea is obstructed, the only difference being that the obstruction is near, instead of being remote from, the seat of the function of hæmatosis, viz: the air vesicles. The *modus operandi* is the same. It is easy to understand why in capillary bronchitis the respirations should be frequent in proportion to the obstruction, while the respirations are slow and prolonged when the larynx or trachea is obstructed. In the latter case, the difficulty is in the passage of air into and from the bronchial tubes; in the former case, the air enters and escapes from the larger tubes without difficulty, the obstacle being in the smaller branches of the bronchial tree.

The presence of air in pulmonary vesicles, even in larger quantity than in health, accounts for the resonance on percussion being as well marked, or more so, as the normal sonorousness. The bronchial obstruction renders it plain that the normal vesicular murmur must be weakened or suppressed. The narrowing of the smaller tubes and the mucous which they contain, are represented by the dry, vibratory, high-pitched, or sibilant rales, and by the fine, moist, or subcrepitant rales. Unequal conditions of the two lungs, as regards dilatation of the cells and pulmonary congestion, may give rise to a slight difference in the percussion resonance, as in the case reported in connection with these remarks. It is true that a paroxysm of asthma presents in combination most of the signs and symptoms just mentioned. Aside from a knowledge of the liability to asthmatic paroxysms in most of the cases coming under observation, the differential diagnosis may be based on the frequency of the respirations in capillary bronchitis, and the great frequency of the pulse, indicative of an acute inflammation. In asthma the respirations, although equally labored, are less frequent, the expiratory act being notably prolonged, and the pulse rarely denotes symptomatic febrile movement. The subcrepitant rale is rarely present in asthma to the extent commonly observed in cases of capillary bronchitis. The subcrepitant rale predominates in the latter affection, and the dry, whistling rales predominate in asthma. However, capillary bronchitis, in a great majority of instances, is observed in children, while asthma is seldom developed before adult age.

It is a trite remark to say that the most important question connected with the study of so serious a disease as capillary bronchitis is, how is it to be most judiciously managed? It is equally superfluous to say that, with reference to a rational answer to this question, the intrinsic tendency of the disease to death or recovery, the source of suffering and danger—in short, the pathology of the disease is to be clearly understood. Clinical observation shows that the disease, under different modes of treatment, often runs a fatal career with great rapidity, destroying life sometimes as quickly as laryngitis and œdema glottidis, and more surely, because we have not the surgical expedient, as in the latter affections, of letting in air to the pulmonary cells below the seat of the obstruction. Can we expect to prevent apnœa by any special plan of medication, when there exists an amount of obstruction incompatible with the continuance of life? It is to be feared that this question must be answered in the negative. Recovery under these circumstances requires that the tumefaction of the membrane shall subside, and the products of the inflammation contained in the tubes removed by expectoration. We have no means of effecting these objects, certainly, without delay, and, therefore, when these physical conditions have attained to a degree incompatible with life, death is inevitable. The grand object of treatment, then, is to prevent, if possible, the occurrence of fatal obstruction. How is this to be done? In general terms, by the measures which tend to diminish and arrest the progress of acute inflammation. To consider these measures would be to enter on a wide field of discussion comprising questions relating to blood-letting, mercurialization, opium, counter-irritation, etc. Suffice it to say that, in an inflammation like this, which kills, not because its intensity or extent overwhelms the powers of life, as does peritonitis, for example, and not because it leads to incurable structural lesions of an organ essential to life, but merely because, from its situation, its ordinary results constitute an obstacle to the supply of atmospheric air for the aëration of the blood, the prompt and efficient employment of therapeutical measures, within the limits of a due regard to the vital powers, is all important. The latter qualification is less imperative in this affection than in some others; yet, it is to be borne in mind that when the blood begins to suffer from deficient aëration, the small probability of recovery which remains, rests on the vital powers being sustained, so that the patient may struggle on to the period when, in the natural course of the disease, the obstruction will cease.

The importance of an early diagnosis in this disease can hardly be overestimated. The prospect of being able, by judicious treatment, to prevent the occurrence of fatal obstruction, is far better than the prospect of affording relief when the obstruction already exists in a dangerous degree. Ordinary bronchitis, especially in children, at seasons when cases of the capillary form have been known to occur, claims more than ordinary care and precaution in the management, in view of the liability of an extension of the inflammation to the smaller tubes.

A case of capillary bronchitis, included in a series of cases reported by my friend and colleague, Prof. Brickell, for the February number of the *Medical News and Hospital Gazette*, presented a loud, cardiac murmur, systolic, its maximum of intensity just below the sternum, but so loud as to be propagated over the entire præcordia. This murmur was developed during the progress of the disease. I did not think that such a murmur could exist without valvular lesions, and I expected, after death, to find the mitral valve insufficient. Prof. B., from having observed a similar murmur, under similar circumstances, in another case, expressed doubt as to the existence of valvular lesions. At the autopsy, the heart was, to all appearance, healthy, the mitral valves seeming to be sufficient. This is the first instance in which it has occurred to me to observe such a well-marked murmur at the apex or inferior border of the heart, without lesions. The foramen ovale was closed in this case, and the heart contained no *ante mortem* clots. Since this case was observed I have met with the following remark by Dr. Barlow, in a paper contained in Guy's Hospital Reports (3d series, vol. v, 1859, page 345): "Whereas I do not hesitate to say that other forms of pulmonic obstruction, as, for example, long-continued capillary bronchitis, may present all the symptoms of diseased mitral valve, murmur inclusive." Dr. Barlow offers no explanation of the occurrence of murmer under such circumstances. In the case reported by Prof. Brickell, the capillary bronchitis was long continued, the patient presenting strongly-marked cyanosis for two or three weeks before death. The most rational explanation of the development of the murmur seems to me to be afforded by the supposition that, in consequence of distension of the cavities of the right side of the heart, free tricuspid regurgitation occurs, and it is this regurgitant current which gives rise to the murmur. It is an interesting point for further clinical observation, to ascertain how frequently a cardiac murmur takes place in the course of capillary bronchitis. And the occurrence of a murmur in a certain proportion of cases, without valvular or other organic lesions, is a fact highly important in connection with the diagnosis of structural affections of the heart.

The pathological relations of capillary bronchitis to the affection known as lobular pneumonia, form an interesting subject for clinical study. I can scarcely do more than allude to it in this article. The existence of such a disease as lobular pneumonia may fairly be doubted. In most of the cases, at least of the affection so called, the solidified nodules scattered here and there throughout the pulmonary organs, consist of lobules collapsed in consequence of obstruction caused by mucous plugs, which interfere with the inspired, but not with the expired current of air. Without discussing the mechanism further at the present time, I will give the following account of the morbid appearances in a case which presented, during life, the phenomena of capillary bronchitis.

The patient was a girl aged fourteen, who was admitted into Prof. Brickell's ward, and died twenty-four hours after admission. My examination of the case was very brief. The respirations were extremely frequent, and the lips livid. The subcrepitant rale was everywhere present over the chest.

The body was assigned to the College for dissection, and I had an opportunity of inspecting the lungs. Their volume was small, and portions here and there were carnified. On making sections and squeezing the lung near the cut surfaces, frothy serum escaped from circumscribed portions, and serum without air from other portions. On inflation prior to section, portions of each lobe were distended to an emphysematous degree, and other portions remained undistended. The inflation, however, was somewhat imperfect, owing to the organ having been slightly wounded. There was no appearance of exudation within the cells anywhere, and no pleuritis. The bronchial mucous membrane was reddened as far as the tubes could be traced.

These morbid appearances were supposed to denote capillary bronchitis with collapsed lobules.

Subacute or chronic capillary bronchitis has important pathological relations to emphysema and asthma. But as these remarks have already extended much further than I had intended, and, as I fear, far enough to have wearied the patience of the reader, I need not apologize for bringing them to a close.

New Orleans, March 20, 1860.

CANCER OF THE MAMMARY GLAND.

By M. Marsh, M. D., Port Hudson, La.

Editors of Medical News and Hospital Gazette—Gentlemen : In the treatment of malignant tumor and ulceration, the impotency of all known remedies in effecting a radical cure is conceded by surgeons and physicians on all hands. Carcinoma of the mammary gland affords a fine illustration. It is never removed spontaneously—never cured by palliatives, and escharotics are worse than useless.

There is more evidence that the knife of the surgeon has relieved a greater number of cases, if not permanently, for a greater length of time than all other remedies combined. In *epithelial ulceration* it has proved preëminently successful. This has been finely illustrated and exemplified by Professor Choppin in the successful operation and permanent cure of an epithelial cancerous ulceration on my own person, which had existed for years, and which two months before the operation had been exasperated by a severe contusion. It had previously been treated by escharotics at various times, which gave me great pain without affording more than temporary relief.

I will now devote the rest of this article to the consideration of cancer of the mammary gland, and the treatment of a case that came under my care, hoping it may prove interesting, if not instructive, to the readers of the *Hospital Gazette*.

On the 15th December, 1858, I was called to see Delphy, æt. 44, servant girl of Mrs. N., a cotton planter near this place. I found her laboring under irritative fever, with pleuritic pain of the right side, which had existed for a month. Her mistress stated to me that the fever and pain were caused by a wen in her right breast. Her pulse was small, wiry, and 120 in a minute. Respiration hurried, with an expression of anxiety, and pain and uneasiness pervading her countenance. She had not been able to perform her duty as cook for the two previous months. On examining the tumor I found the whole mammary gland involved in disease—nipple retracted and indurated at its right—adherent to the skin, and attached to the facia of the pectoralis muscles. It was very tender, with constant prickling pains. The lymphatics were affected sympathetically or specifically all along their line to the axillary glands which were very much enlarged. The case had been previously treated by the application and internal exhibition of iodine, and it had been about a year since the first appearance of the tumor.

After thorough examination and reflection, I announced to her mistress that it was, in my opinion, a case of cancer of the breast ; that there was but little hope of a cure, and she either had to pursue a palliative course or submit to its extirpation with the knife, to obtain for her servant a little respite or temporary relief. After taking her to other physicians, all of whom agreed with me in diagnosis, I advised extirpation, and all but one recommended her to take the girl to Dr. Stone, of New Orleans, for its performance. Her mistress applied to me to operate. I stated to her the danger of relapse ; that operations were sometimes followed by immediate ulceration, thereby hastening the patient's death. On the other hand it might afford relief for a year and possibly for years. She elected the last alternative, feeling confident the girl could not live long without relief from some source. On the 5th January, 1859, I proceeded to operate, in presence of and assisted by Dr. C. W. Dorch and Dr. J. W. Jones. The girl was placed in a chair, firmly fastened by towels passing round her pelvis and abdomen. After the patient was etherized, her right arm was carried by an assistant upward and backward. I placed myself on the affected side and the operation was commenced by first making the skin tense with the forefingers of my left hand, and the resistance of those of an assistant in an opposite direction—an eliptical incision was then made, with its concavity upward, by cutting from deep in the axilla towards the sternum, dividing the integuments freely with one sweep of the knife. Drawing the skin and breast in different directions, the integuments were then dissected free from the gland on the inferior portion, and another eliptical incision was made on the upper side of the gland with its concavity downwards, commencing at the former incision, just at the anterior margin of the axilla, and extending so as to meet the first at the sternal termination. The two incisions included the nipple with all the diseased integuments. The upper flap was now dissected off like the first—the mass was then firmly seized with my left hand, and dissected out in a line with the fibres of the pectoral muscles, with its adherent facia, and carried boldly up into the axilla, extirpating every enlarged lymphatic, and completely removing all the morbidly affected axillary glands. The wound was then cleansed with water, and every indurated portion and morbid shred removed. As the operation progressed the arteries, as they were cut, were compressed by the fingers of an assistant, and when the cleansing and examination had ceased, they were so much contracted as to stop bleeding without the use of ligatures.

The arm now being brought to the side, the skin was pushed as near together as possible, and retained in this position by three points of single suture, and long adhesive straps, supported by a light compress of surgeon's lint and bandage. No other application was made to the wound. The arm was then placed in a sling, and its action restrained by a bandage, confining it closely to her side to prevent motion of the pectoral muscles.

On cutting into the tumor after its extirpation, there was a small quantity of greenish fluid around the nipple : the rest of it was a hard, cancerous mass, as far as could be determined without the aid of a microscope.

On the fourth day after the operation the dressings were slightly soiled with secretion from the wound, with some unpleasant odor and uneasiness to the patient. Every thing unpleasant was removed, and the patient relieved by the application of a lotion, composed of six parts water, and one of Labarraque's chloride of soda. This treatment was continued until the ninth day, when the dressings were taken off and stitches removed. The wound had healed finely by the first intention, with the exception of a space about as wide and long as my fore finger, which could not be covered by skin on the first dressing. I continued the lotion and dressed it with adhesive straps every three or four days until the 28th January, when it was completely healed by granulation, leaving a cicatrix in its greatest width not more than one half inch.

In one week after the operation the fever and pain in the side had ceased, and in two weeks she assisted in nursing her mistress, who had fallen sick of typhoid pneumonia. No medicine was administered internally, with the exception of a castor oil cathartic, which is satisfactory evidence that the removal of the mamma stopped the fever, and caused the rapid improvement in the patient's general health.

She has not had any return of the disease, although it has had abundant provocation. For six months after the operation she was constantly laboring as cook, without, as she expressed it, "knowing her breast was gone." She was then very wrongfully put to plowing in the field. She had never been accustomed to it. The integuments had become firmly attached to the subjacent structures.

The rapid and violent action of the pectoral muscles in guiding the plow and keeping it in the ground, broke up those attachments, caused swelling, great pain, and soreness in the cicatrix, and I much feared a return of the disease. But a cathartic, rest, and a lotion of muriate of ammonia and volatile liniment soon gave relief, and she has since been engaged in her vocation as cook, with but slight uneasiness in the region of the cicatrix.

Considering the mass of testimony against operations of the kind, and especially the extent to which this was carried, as not only affording no relief, but, on the contrary producing positive injury, especially in cases of such rapid development of cancer, it may be considered rashness in venturing upon the use of the knife in a case of such questionable propriety. But there is good authority that cures have been effected by this remedy. This case was a very urgent one. The patient and her mistress insisted upon the operation, and the result has proved the wisdom of their election. The diagnosis I think unequivocal, and the operation has unquestionably given the patient relief from pain, extension of life, and the ability to render valuable service to her owner. Hence we must conclude that operations in such cases are not only acts of humanity, but economy, and that they show how the surgeon's knife may minister relief to human suffering, and promote one's pecuniary interest.

Port Hudson, La., April 12, 1860.

ABSTRACT OF AN ESSAY ON HÆMATURIA.

BY DOCTOR RAYER,

President of the Biological Society of Paris, Member of the Institute of France, etc.

By A. Peniston, M. D., Professor of Anatomy, New Orleans School of Medicine.

The influence of climate upon disease is a most interesting question to the pathologist, and all contributions to this subject must prove acceptable to our readers, the more so that, far from being simply curious, they may also prove practically useful. This is especially true with regard to hæmaturia, a peculiar disease of the urinary organs, which has at times appeared in the South, as will appear by reference to the past numbers of the *Medical News and Hos. Gaz.* This curious disease, which is not mentioned or described by the different classical authors, has been but little studied, and is very imperfectly known. Some years ago several cases of hæmaturia, imported from the Isle of France, came under the observation of Dr. Rayer, the distinguished President of the Society of Biology, of Paris, and he published at the time the result of his investigations, in pamphlet form, a few copies of which were printed and distributed among his friends.

At the sale of the library of the celebrated Orfila, Dean of the Medical Faculty of Paris, and Professor of Chemistry and Toxicology in that famous school, I had the good fortune to purchase a copy of the above pamphlet, together with a lot of similar documents, several of which were curious as presentation copies to the great chemist.

I shall endeavor in the present article to give a brief summary of this memoir, which will include a description of the disease, its pathology and treatment.

Hæmaturia, says Dr. Rayer, is endemic to the Isle of France (Mauritius), where it prevails extensively among the children, and often among adults. It presents three different varieties. 1st. Simple hæmaturia. 2d. Hæmaturia with deposits of uric acid. 3d. Hæmaturia with chylous urine, that is, containing albumen and fat.

Mr. Rayer has seen several times the transformation from hæmaturia into albuminuria, among native-born Frenchmen inhabiting Paris; but he has never seen the change from hæmaturia into chylous or fatty-albuminous urine, except among individuals born in tropical climates. This latter transformation is very rare in Europe. There is no doubt that, in cases of inflammation of the pelvis of the kidney, or in calculous cystitis, the urine, which was first bloody, may become whitish from the mixture of pus; but purulent urine is very different from chylous urine. Microscopical examination of purulent urine shows the pus corpuscles; in chylous urine, on the contrary, we find globules which resemble blood corpuscles, and in the fatty-albuminous urine it may contain no corpuscles at all. Purulent urine, when allowed to stand, always reveals the characteristic deposit of pus, the liquid above being transparent. Chylous urine, on the contrary, retains the same opacity throughout, and presents, after a few days, a creamy appearance on the surface. The disease which is thus prevalent in the Isle of France, is, perhaps, similar to that which prevails among Europeans who visit Egypt, Nubia, and other tropical climates. Mr. A. J. Renault, in the *Journal de Medicine et de Chirurgie*, vol. xvii, speaks in the following terms on the subject of hæmaturia, as observed by him in Upper Egypt during the memorable invasion of that country by the French under Napoleon:

"A most obstinate form of hæmorrhage appeared among the French soldiers during the conquest of Upper Egypt. It was much more common among the horsemen than the infantry; and the horses themselves were affected in a similar manner, especially the younger ones. In these high table lands, surrounded on all sides by parched deserts, the warm weather, though coming on gradually, becomes at noon almost unbearable to non-acclimated persons. The whole body was continually bathed in a most profuse perspiration, whereas the urinary secretion was almost entirely suppressed; then it became very thick and bloody, the last jets in urinating consisting of pure blood. The patients suffered from acute pain in the region of the bladder; sometimes extending to the glans penis. They had frequent desire to micturate, and the last contractions of the bladder were exceedingly painful, and sometimes dysuria supervened. After an attentive examination, I have attributed this disease to excessive perspiration, combined with long and fatiguing exercise on horseback. Then the urine becomes scanty, thick, and irritating, and causes intense inflammation of the coats of the bladder, as I have ascertained in several cases by post-mortem examinations. In the treatment of this affection I obtained some success by abundant diluent drinks and rest. The vapor baths which are so common in that country were far from beneficial, while, on the contrary, river baths seemed to act very favorably. Under this treatment the patients generally recovered in about a month; but as soon as they returned to active exercise, and especially to riding on horseback, the urine again became scanty and irritating, causing fresh pain, a sensation of weight in the bladder, and finally return of hæmaturia. Under the circumstances in which the invading army was placed, in a hostile country, with insufficient accommodations for the sick, any other method of treatment was impossible, though doubtless the one which I had seen used by Desault, under different conditions, might have been effectual; viz: the introduction into the bladder of gum-elastic catheters, and allowing them to remain permanently, so as to relieve the viscus of this excorating liquid. But this process was scarcely applicable on a patient carried across a rough country, on a litter borne by camels. From having been thus too long neglected, the disease became, in some cases, so deeply rooted as to resist the best methods of treatment continued for several years after their return to France. Other cases, less obstinate, have been cured by diluent drinks, local baths, and the introduction of gum-elastic bougies."

Such is the interesting account given by this author, of the influence exercised by the climate of Egypt on this variety of hæmorrhage. Other authors have likewise observed the influence of tropical climates as a cause of hæmorrhage. Bontius, in his work entitled *De Medicina Indorum*, says that hæmoptysis is frequent in India. Blumenbach, in his *Dissertatio de Generis Humanis Varietate*, says that the greater part of European women who live on the coast of Guinea generally die from uterine hæmorrhage. But while admitting these climacteric influences, we must, nevertheless, endeavor to explain why the molimen hæmorrhagicum takes the form of hæmaturia in the Isle of France, of hæmoptysis in India, and another form on the Guinea coast. It is, moreover, remarkable that hæmaturia in the Isle of France generally ceases at puberty, that it is often accompanied with lithic acid deposits, and at other times assumes the appearance termed chylous urine.

In Europe and other temperate climates, hæmaturia is scarcely ever observed, except in old age, the reverse being the case in the Isle of France, where it mostly occurs among children. But this apparent discrepancy in the ætiology of this disease is susceptible of explanation. In Europe, when hæmaturia is observed in old men, it is generally symptomatic of organic changes in the urinary apparatus, such as cancerous degeneration of the kidney, or of the bladder, or caused by gravel; but idiopathic hæmorrhage of these organs is equally rare both in children and adults. In most cases of hæmaturia, as it appears in the Isle of France, the children's urine contains but a small quantity of blood; no clots are formed, and the urine is voided without any pain. It has only a slight rosy tinge, such as can be artificially imitated by putting into healthy urine a small quantity of blood. When allowed to rest, it presents in a short time a red deposit, which the microscope shows to be composed of blood corpuscles. In the milder cases, if the urine be examined at different hours of the day, it will at times be found to be free from blood corpuscles or fibrinous deposits, though, when tested with nitric acid, it presents the grumous appearance of coagulated albumen. At other times the urine appears perfectly healthy for several days, and will then assume a bloody appearance without any appreciable cause. In this mild form the disease does not seem to exercise any deleterious influence on the children, who continue their usual avocations, and appear in perfect health.

In severer cases, clots may be formed in the bladder or urethra, and cause retention of urine, or pain in voiding it. If these copious hæmorrhages become very frequent, the children look pale and languishing, and their physical development may be impeded or arrested. It appears, however, that the loss of blood is never sufficiently large to occasion anæmia, and consequent œdema or dropsy, whereas these often occur when hæmaturia is caused by cancer of the bladder, and other similar degenerations. Even in those cases of chylous urine which are found to contain a considerable quantity of albumen, they are not accompanied by anasarca, such as that so often seen in the granular degeneration of the kidney—in fact, in the latter, anasarca is one of the very first symptoms, and comes on before any very decided changes in the kidney itself.

The presence of albumen in the urine does not, therefore, always present the same gravity, for, as an isolated phenomenon, it is dependent, in some cases, upon different morbid conditions of the urinary passages, and, in others, may be caused by disease of the blood itself.

An important fact connected with hæmaturia, as observed in the Isle of France, is that the sediment deposited is entirely composed of blood corpuscles and crystals of uric acid. When the latter accumulate together, they produce masses of gravel, which are visible to the naked eye. The presence of this gravel may occasion nephritis, and prevent the passage of urine through the ureter into the bladder, or from the bladder through the ureter. It would be interesting to ascertain whether children in the Isle of France are oftener affected with calculus than elsewhere, or whether the small calculi, being voided as soon as they are formed, exercise no deleterious influence of the kind. This question has not been determined, though, by microscopical examination of the urine, it will be always easy to ascertain whether the pains in the lumbar region, or in the kidney or bladder, are caused by gravel or by clots of blood situated in those organs. For, when any inflammation of the urinary apparatus manifests itself, it can always be recognized by the mucous or pus corpuscles which are then mixed with pus corpuscles. In the third form of the disease, the appearance of the urine is still more remarkable. The patients in this condition pass, in the course of twenty-four hours, two kinds of urine: one presenting all the physical signs of bloody urine, viz: blood corpuscles, fibrinous clots, and albumen; the other, which appears a few hours after digestion, presents a pale-red appearance, and when allowed to rest, separates spontaneously into two parts, the lower stratum having a bloody appearance, the upper presenting an opaque white appearance. A microscopical examination of the latter does not detect, at times, either blood globules or fat corpuscles; at other times we find a large number of flat, yellow corpuscles, quite similar to blood corpuscles, and equally soluble in water and acetic acid. As to the fatty matter, it does not assume the globular form, nor resemble the granular corpuscles of pus, though the latter would be found if the disease were accompanied with inflammation of the urinary passages. When we add ether to a certain quantity of this chylous urine, which may or may not contain blood corpuscles, the liquid becomes transparent after a few hours, and then, if this ether be allowed to evaporate spontaneously in a watch-glass, a considerable quantity of fat will remain behind. If this urine be first deprived of fat, and then tested with nitric acid or heat, it presents either the grumous or coagulated appearance of albumen. After the albumen has been coagulated by heat, if it be filtered and then evaporated to the consistency of syrup, and, when cold, treated by nitric acid, it will give a thick deposit of nitrate of urea. When chylous urine is compared with a mixture of normal urine, and chyle from the thoracic duct of a horse, the resemblance of the artificial and the natural production will appear manifest. In both liquids we find corpuscles which resemble blood discs; both have a small quantity of fibrine, together with albumen, and a considerable quantity of fatty matter.

As to the third kind, or the fatty-albuminous urine, it appears identical with normal urine to which is added all the organic elements of chyle, less its blood corpuscles—in other words, it resembles greatly ordinary albuminous urine. Dr. Rayer concludes, from several cases, one of which is reported by him in his excellent work on the Diseases of the Kidneys, vol. iii, p. 397, that hæmaturia, when accompanied with chylous urine, is dependent upon a peculiar alteration of the blood, which has been shown by analysis to be very similar to chyle contained in the thoracic duct.

Several individuals whose urine presented this chylous appearance, were apparently in excellent health, one case alone being amaurotic, though the latter disease did not seem at all dependent upon the other. In two cases of chylous urine, the patients were subject to gout; but in all of them the deposit of uric acid was always observed in considerable quantity.

A remarkable circumstance connected with this hæmaturia of the Isle of France, is the frequent transformation of bloody urine into chylous urine, and then into albuminous or fatty urine.

Dr. Rayer says that, in his experience, he has seen several times the appearance of bloody urine to be followed by the granular degeneration of the kidney, especially when this pathological condition was dependent upon scurvy or purpura. But in this endemic hæmaturia, when the urine no longer contains any blood, it assumes a milky or chylous appearance, and besides albumen, it contains a considerable quantity of fat. In over two hundred cases of Bright's disease, observed by Dr. Rayer, not a single one presented the appearance of chylous urine. A few cases presented, at times, a slightly turbid urine, and it certainly contained more fat than in the normal condition; but it was never sufficient to present a milky or chylous appearance.

On the other hand, if we read attentively those cases of chylous urine which have been observed in Europe, eliminating, however, many cases where purulent urine was mistaken for chylous urine, it will be found that none of the cases which presented the milky or chylous appearance were ever preceded by hæmaturia. Prout, who has studied with great care this alteration of the urine (see Prout on Stomach and Renal Diseases, American edition, p. 110), and termed it chylo-serous urine, does not mention the occurrence of hæmaturia, either before or after the chylous appearance of the urine.

The progress of hæmaturia, as observed in the Isle of France, is essentially chronic, whether complicated with uric acid deposits, or followed by the chylous urine. The hæmorrhage sometimes ceases during several days and weeks, then it returns, and may thus continue during several years, with more or less intermission or remission. That this disease is dependent upon the climate, is proved by the fact of the large number of individuals affected by it, between the age of early childhood and puberty. On the other hand, that the disease in some cases continues several years after the patients have resided in Europe, proves that it may become constitutional. At times the disease assumes a periodic nature, similar in this respect to other kinds of hæmaturia, which are not caused by climate, and which are termed constitutional, from the fact that their suppression, whether accidental or otherwise, has been followed by unfavorable results.

In the Isle of France, this hæmaturia rarely becomes so serious as to cause death, and the condition of the urinary organs has seldom been verified by post-mortem examination. Those who come to Europe have uniformly been benefited by the change of climate.

In one case observed by Dr. Rayer, the blood, when examined, did not seem in a pathological condition, but in another case, where it was carefully analyzed, it was found greatly changed from the healthy standard. It contained less fibrine, more albumen and fat than healthy blood, resembling chyle in physical appearance and chemical composition.

The physicians of the Isle of France are perfectly familiar with this disease, and are never at a loss in their diagnosis; the parents themselves generally recognize the disease, so common is it. In Paris, on the contrary, this disease is generally unknown to the great majority of physicians who happen to be consulted by patients from this Island, and Dr. Rayer was himself utterly astonished on being told that the great majority of the children in the Isle of France passed bloody urine. We are bound to admit the influence of climate in the production of this disease, for, in Europe, hæmaturia, when not caused by external violence, or the presence of calculi, is totally unknown. The persistence of this disease during many months, and sometimes years, without any apparent deleterious influence, is again a strange peculiarity, rendered still more remarkable by the change of hæmaturia into chylous urine. In Europe, children who are affected with gravel, or who suffer from calculi of uric acid, often pass bloody urine; and their urine, similar to that passed by patients of the Isle of France, is remarkable by a thick deposit of uric acid crystals; but when the formation of calculus ceases, the blood disappears at once from the urine, whereas, in the latter, it continues for a long time without any apparent cause or unfavorable result. The disease, therefore, is quite characterised by the habitation of the patient, by its mode of invasion without known cause, at the age when it generally occurs in that climate; its diminution during the voyage to Europe, its cure by change of climate, and finally its recurrence on returning to the Island.

The prognosis of this curious disease is not so unfavorable as the symptoms would at first indicate, and the gravity of the disease varies in the three different forms we have already indicated. Simple hæmaturia is evidently a milder affection than when it becomes complicated with the lithic acid diathesis, and the transformation of hæmaturia into chylous urine shows a more disordered state of the organism ; and yet Mr. Rayer reports a case of chylous urine in a patient forty years old, whose general health appeared very good, though his urinary secretion was a mixture of albumen and fat.

The treatment of this disease, as recommended by Dr. Rayer, is exceedingly simple. Left to itself, or treated by the *expectant method*, as the learned author terms it, this endemic hæmaturia, whether complicated or not with gravel, generally disappears spontaneously after a variable length of time, though the patient remain on the Island itself.

Sometimes it assumes an intermittent form, and this is considered by the physicians of the country as a sort of natural crisis, with which it is not prudent to interfere. In some cases the use of acidulated drinks, of astringents, especially rhatany, and sometimes bloodletting, appear to have relieved the hæmorrhage. But if bloodletting may in some exceptional cases be tolerated at the beginning of an attack of hæmaturia, it is certainly contra-indicated in those cases where the system is already debilitated by the continued hæmorrhage from the bladder. Moreover, bloodletting could only act as a palliative, and not a curative means. When children become pale and languishing from the continuance of the disease, the preparations of iron are found very useful, their effect being increased by a generous diet and moderate exercise. Some patients affected with hæmaturia have been known to contract gonorrhœa, and it was observed that copaiva, which was given for the intercurrent disease, likewise proved efficacious against the other. When hæmaturia is complicated with the lithic acid diathesis, it becomes necessary to combine with the previous treatment the use of alkaline remedies, until the crystals of uric acid disappear from the urine. In the more advanced cases, when the disease has taken the form of chylous urine, it is said that the tincture of cantharides has been found beneficial, though it would certainly not appear indicated on theoretical grounds. When the above method of treatment does not succeed, change of climate is probably the only remaining remedy, for, the cause being certainly local, its effect ceases by removal. Many persons have accordingly recovered without any other treatment, after a voyage to Europe. In some cases the cure has not been permanent, and the disease declared itself anew when the patient returned to the Isle of France. Change of climate, therefore, is far from being an infallible remedy, for some of the natives have not appeared at all benefited by it.

In those cases where the urine has assumed the chylous appearance, the greatest benefit has been derived from cold saline baths, combined with tonics, the use of iron, and astringents. The physicians of the Island admit there is as much obscurity surrounding the pathology and treatment as ætiology of this curious affection, for, at times, the disease disappears of itself, without any medication whatsoever.

CLINICAL LECTURES OF PROF. NELATON.

From Notes taken by Marco A. Rojas, M. D., New Orleans.

Ganglionic Tumors of the Parotid—Diagnosis between them and the Cartilaginous Tumors of the same Region—Anatomy of the Parotid Ganglions—Operation—Remarks upon it—Cicatrization 11 days after it—Compact Tumors of the Thyroid Gland—Professor Nelaton's Opinions about them—Case Reported by him—May 11, 1857.

This important case was a young woman who entered Mr. Nelaton's wards some days ago. She had had for many years a tumor upon the parotid region. This tumor was of the size of an orange, presenting many irregularities. It was also ulcerated on its upper part, looking like an encephaloid cancer.

At the beginning Mr. Nelaton thought he had to do with an encephaloid tumor, and that the patient was to be consequently abandoned to death ; but examining the patient more carefully, he found that the tumor occupied the whole length of the parotid region, although the limits of the gland have been little trespassed on.

The ulceration of the tumor presented some anfractuosities, and between them a small point of cicatrization, then in its beginning. But this cicatrization should not, said Mr. Nelaton, cause us to exclude the idea of an encephaloid tumor. On the other hand the tumor did not adhere by its circumference ; it presented fluctuations at some parts, and was more consistent on others. Mr. Nelaton tried to find on it some hard, or cartilaginous points, but failed. Its mobility was not very extensive, and it seemed to be adherent to the side of the ear ; at least it was there harder than elsewhere. It is necessary also to bear in mind that it was placed on the jugular vein.

"Of what kind," said Mr. Nelaton, "is this tumor? It is not encephaloid, simply for the reason of its antiquity. The patient has had the tumor for ten years, and it is not frequent to meet encephaloid tumors of such antiquity without very extensive ravages."

Not finding any cartilaginous points, Mr. Nelaton was of opinion that there was not an enchondroma of the parotid.

It is well known that Professor Nelaton has been one of the first to call the attention of surgeons to that kind of tumors, as being developed oftener on the parotid gland than elsewhere. The tumor this patient had was different from the cartilaginous tumors of the parotid, but experience has proved that these same tumors of the parotid are liable to several transformations. They remain stationary during some years, simulating encephaloid, and then they begin to present some isolated cartilaginous points on the surface. None of these points were found in the present case, however.

Professor Nelaton's diagnosis was, that this patient had a ganglionic tumor of the parotid, presenting an unusual appearance. It is very rare to see a glanglionic tumor become ulcerated on its surface. "There are, however, some reasons to doubt, said Mr. Nelaton ; for instance, we have very seldom seen these tumors solitary or isolated, and they are found nearly always on several parts of the body at the same time. In this patient all the ganglions are exempt from inflammation, being in the natural condition. Nevertheless, as the other symptoms of ganglionic tumors are well marked I do not doubt my diagnosis."

"Recapitulating the symptoms, we see :

1st. A tumor that during three years has remained stationary. 2d. That the patient had it punctured without the hole left by puncture, being cicatrized. 3d. That it was treated by caustics, especially by arsenical caustics, without any advantage, consequently surgery ought to interfere and remove it by an *operation*." The patient was chloroformized, lying on her back. Then Mr. Nelaton made two incisions—one anterior, and the other posterior, dissected the skin to each side of these incisions, and took out the tumor with the ulcerated portion of the integument.

Remarks.—At the meeting of 15th May, 1859, Mr. Nelaton presented before the class the tumor removed three days before, having the ulcerated portion between the two incisions practised by him. It was a tumor which, being movable in appearance, could not be considered adherent, as was found at the time of operating.

Mr. Nelaton had asserted that it was a ganglionic tumor, consequently it was necessary to ascertain which was the ganglion that was affected.

It is known that there are at the parotid region superficial and deep ganglions : that is to say, ganglions that are situated between the skin and the parotid gland, and ganglions that are within the texture of the gland. In the present instance the tumor involved one of these parotid ganglions, as was seen on the portion of the gland that Mr. Nelaton was forced to remove with the tumor, and presented by him before the class.

"It explains sufficiently," he said, "the length of the operation. I had to take much care with the facial nerve, because, had I cut it, a facial paralysis would have been the consequence."

The texture of this tumor was exactly the same as that of lymphatic ganglions. Mr. Nelaton cut it in several directions, looking for cartilaginous points, but he did not find them ; consequently it was not an enchondroma.

Twenty-four hours after the operation the edges of the wound were united by the first intention, and there was no suppuration. Mr. Nelaton took away all the sutures, putting in their place small pieces of linen saturated with collodion, in order to prevent any accident to the wound.

The symptoms of reaction that the patient presented were only a little tumefaction of the face and eyelid.

At the meeting of May 22, 1857, Mr. Nelaton spoke again about this patient, saying that the cicatrization of the wound was complete (eleven days after the operation). "It is a fact," he said, "that you ought to bear always in mind, because it shows you that there are some benign, although, in appearance, malignant, tumors that can be cured in a very short time. This woman left the hospital two or three days afterwards, but carrying with her another tumor, viz: an hypertrophy of the thyroid gland.

The same day, speaking about these tumors of the thyroid gland, Mr. Nelaton advanced some principles that, we think, must be kept in mind by every surgeon.

"My opinion is," said he, "that these tumors ought not to be touched. Every time I see a tumor of this kind, I remember a case in which Roux performed an operation, having to apply sixty ligatures. In spite of all, however, the patient died from hemorrhage a few hours after the operation. Neither will I ever forget the saying of Pelletan, who, after having witnessed an operation of that kind, said: '*For the future I will not allow myself to authorize with my presence an operation of this kind.*'

"The difficulties of this operation are immense, and the result always death. I will never practice it, and if I speak now to you about this matter, it is because of late years cases have been reported in which good results have been obtained."

After quoting several instances in which the operation was followed by death, Mr. Nelaton said, "Thus, we must abstain from touching the compact tumors of the thyroid region, whatever may be the requests of the patient to the contrary."

One of the cases quoted by Prof. Nelaton, was that of a young lady who was under the care of Professors Velpeau, Denonvilliers, Laugier, Demarquay and himself. The dyspnœa produced by compression was so imminent, that one day these gentlemen were requested urgently by the patient's family to perform an operation. After consulting they decided not to remove the tumor, but to practice a kind of tracheotomy to give a passage to the air, and thus relieve the sufferings of the lady.

Scarcely had the operator (it was not Mr. Nelaton) made the first incision, when a flow of blood ensued which prevented further operation. It was impossible to check the hemorrhage, and the poor lady died thirty-five minutes afterwards. "Without the operation," said Mr. Nelaton, "that patient would have lived until the next day, perhaps forty-eight hours. Thus, the only result of the operation was to hasten death."

SPECIAL SELECTONS.

LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the COLLEGE OF FRANCE, during the Winter Session, 1859-60.

By M. CLAUDE BERNARD, Member of the French Institute; Professor of General Physiology at the Faculty of Sciences.

LECTURE VI.—OPERATIVE PHYSIOLOGY—ON THE SALIVARY GLANDS.

Summary: Properties of Parotidian Saliva—How to Operate for the purpose of passing Tubes into the Parotid Duct: Anatomical Disposition of Parts in the Horse and Dog—Properties of Saliva thus obtained: they differ in various Species, and sometimes in various Animals of the same Kind—The Reasons of this apparent Contradiction explained—Intermittent Character of the secretion—Various Modes of Exciting it—Elective Affinity of the Salivary Glands Illustrated by various Experiments—All Substances capable of passing into the Saliva when introduced in sufficient Quantity into the Blood—Absorbent Powers of the Internal Surface of Glands—Their Disappearance during the Process of Secretion.

GENTLEMEN—The properties of the salivary glands, as we have already stated, are the first object to which we shall direct our attention in commencing the experimental part of this course.

Saliva is secreted by three principal glands, the functions of which require in each particular case a separate investigation. Each of them has, in fact, its own peculiar use, and its action, when interrupted, cannot be supplied by that of its congeners.

As in the case of each gland a definite surgical operation is required in order to obtain in a state of perfect purity the liquid which it produces; I believe it to be indispensable that the precise anatomical notions which will enable you to repeat the experiment for yourselves should be laid before you at once.

The parotid gland in the horse is situated partly beneath, and partly before the external ear. The numerous ducts which arise from its granulations gradually coalesce into a considerable trunk, which, after descending for a certain space, and then rising again towards the mouth, penetrates into the oral cavity in front of the second molar tooth. A curve is thereby described, the concavity of which embraces the ascending ramus of the lower jaw. The facial vessels and nerve which pass over the duct must be carefully avoided in dividing it. In order not to injure these important parts, the anterior edge of the masseter must serve us as a guide in performing the operation. Let the incision be carried along its lower third, and the duct will be at once discovered, on the very point where it changes its direction, and rises towards the mouth. It may there safely be divided so as to allow a slender tube to be introduced. The one we are about to make use of is a small silver pipe, containing a probe, which serves to clear it when obstructed, and makes it easier to be introduced. The excretory duct is then tied over the canula, just above the point where it has been introduced.

(After demonstrating the operation on the head of a horse, M. Bernard performs the experiment on a living animal ; not a single drop of saliva escapes at the moment when the tube is introduced into the ductus stenonis.)

The same proceeding is applicable to most of the herbiverous animals. The rabbit, however, offers a totally different arrangement : the ductus stenonis in this species presents the same relations as in the dog ; it therefore becomes indispensable to operate as in the case of this latter animal.

The parotidian duct in the dog passes through the muscular fibres of the masseter, and following a direct course opens into the mouth in front of the second molar. In order to practice the same operation as before, the lower edge of the zygomatic arch must be felt for and followed from its posterior to its anterior extremity; a slight depression will thus be discovered; at this very point the duct passes into the mouth. Let a horizontal incision be made over this point, the duct will be easily discovered; but the facial vessels and nerve which lie before it, must be previously dissected with care, and then drawn aside with a curved probe; the duct immediately appears beneath them; nothing remains but to open it and plunge a tube within its cavity.

(M. Bernard performs the experiment on a middle sized dog. At the moment when the duct is laid open the animal utters a few plaintive cries. This proves, according to M. Bernard's remark, that the parotidian duct is sometimes endowed with sensibility, although the reverse is usually the case.)

You see, gentlemen, that not a single drop of saliva escapes at this moment from the tube; in general, the fluid is only secreted during the process of mastication and deglutition, or under the impression of acute pain, or of a powerful sapid sensation. You are well aware that various moral influences are capable of exciting its secretion: the fact is a well known one in man, and can be equally verified in the lower animals. The horse which has just undergone the operation we have performed in your presence, has been fasting for several hours; the mere sight of his food will immediately bring on an abundant secretion.

(A bundle of hay being brought in, the animal exhibits great excitement, and a jet of saliva flows from the tube.)

Acids, however, are of all the agents that can be brought to bear upon the salivary glands the most powerful. Berzelius had remarked, several years ago, that alkaline secretions were excited by acid substances, and *vice versa*, now saliva being an alkaline secretion, is likely to be elicited by the action of acids upon the gustative nerves, while alkalies remain comparatively inefficient.

(The experiment is tried on the dog, into the parotid duct, of which a tube had been previously introduced. A few drops of vinegar being poured into the mouth, saliva flows from the tube drop by drop ; an alkaline solution being then substituted, no sensible result is obtained.)

Let us now examine the saliva we have obtained from both animals. In the dog, as you see, it is a limpid and colorless fluid, the reaction of which is strongly alkaline. But this is not always the case. We find in Tiedemann and Gmelin's great work on the digestive fluids that, after dividing the parotidian duct in a dog, they plunged its extremity into a small glass case, so as to obtain ten grammes (180 grains) of a viscous fluid, strongly resembling albumen in its general appearance. Such are, therefore, the properties which these celebrated observers acknowledge as characterizing the parotidian secretion—a conclusion widely different from that which we have just arrived at ; and in repeating the experiment on ten or twelve different animals, you would probably meet once or twice with the same result. How is this apparent contradiction to be explained ? A peculiar anatomical distribution is its real cause. It sometimes occurs that, before opening into the mouth the ductus stenonis receives the excretory canals of two or three little mucous glands, which impart the properties of their own secretion to the parotidian fluid. Nothing is easier than to prove this. In the animals which offer this peculiarity let the duct be laid open above the point where it is joined by these tributary canals, and the normal and unmixed secretion of the gland will be ascertained to be exactly similar to that which we have just exhibited to you. In man the anatomical peculiarity we have noticed as an anomalous exception in the dog is normal. The parotidian saliva, as poured into the mouth, always, therefore, enjoys a certain degree of viscosity in our own species. In this respect we find the dog approaching closer to our own organization than other animals.

As to the saliva obtained from the horse you see it offers, on the contrary, a viscid appearance ; as in the dog, its reaction is strongly alkaline ; but the action of heat, or the addition of nitric acid, precipitate an albuminous substance, which appears to be peculiar to the equine genus, although its chemical composition has not yet been precisely ascertained.

Let us now consider a few of the more important characteristics of the secretion itself, viewed apart from the nature of the fluid produced.

A tube being introduced into the parotidian duct, in a living animal, it may be easily ascertained that the saliva only flows at intervals ; in the horse, which, during mastication emits prodigious quanties of it, the secretion now and then ceases in an abrupt manner, although the triturating process is still going on. The reason of this singular phenomenon long remained uncertain ; we are now aware that the gland which lies on that side of the mouth where mastication is going on, almost entirely suffices for the insalivation of aliments ; when the animal, (as in the present case) has had both ducts laid open, and a tube passed into them, it becomes evident, that during mastication the two parotids are alternately called into action ; while the one secretes, the other is at rest. The horse we have operated upon, is at present satisfying its hunger, and you perceive that the saliva, however abundant, only flows on one side at a time.

In the normal state, the chemical composition of saliva, as secreted by each gland in particular, remains invariably the same ; it may, however, accidentally contain foreign substances. We gladly seize this opportunity of exhibiting, in a strong light, the elective action of glands : the secretion we are investigating at the present moment offers a remarkable instance of this singular property. Among the various bodies introduced into the blood, we find some which almost instantaneously pass into the saliva : iodine and its various compounds enjoy this property. Other substances cannot penetrate without the greatest difficulty into this secretion ; the salts of iron belong, for the most part, to this latter class. A direct experiment will enable you to judge for yourselves. The crural vein of a dog being opened, the extremity of a small syringe is introduced into the vessel ; a determinate quantity* of a solution containing 1-100th part of the yellow prussiate of potash is then injected into the torrent of circulation, together with an equal amount of a similar solution of iodide of potassium : this latter substance will almost instantaneously be met with in the animal's saliva, while none of the usual tests exhibit the slightest vestige of the yellow, ferro-cyanuret of potash. In the animal's urine we shall, on the contrary, discover it in considerable quantities : a fact which amply demonstrates the penetration of this substance into the system, although the salivary glands refuse to eliminate it.

(These various experiments are all tried on the dog, and meet with perfect success. It is necessary, before employing the usual tests, to neutralize, by adding a few drops of acetic acid, the alkaline reaction which saliva naturally presents; the chemical actions might otherwise be impeded.)

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* Five cubic centimetres.

You therefore see, gentlemen, that iodine and its compounds will readily pass into the saliva, while the principal salts of iron are not to be found in that fluid, under ordinary circumstances. We possess, however, various means of overcoming the resistance (so to speak) of the salivary glands. If, in the first place, we combine one of the refractory substances with another body that enjoys the property of passing into the saliva, the difficulty is overcome: iodide of iron, for instance, passes readily into the saliva, on account of the iodine it contains.

In the second place, if a direct injection be had recourse to, the salivary glands may be compelled, as it were, to eliminate the obnoxious substances. The largest doses of prussiate of potash may, for instance, be poured into the animal's veins without giving the slightest indication of its presence in the saliva, even when recourse is had to the most sensible tests; but if, by means of an injection into the common carotid artery, we create, in a manner, a local plethora, in the atmosphere of the salivary glands, we succeed in obtaining the desired result, which, under any other circumstances, we should invariably have failed in producing.

It therefore remains an established fact, that the so-called affinity of glands for certain bodies, only expresses the greater facility with which they gain admittance into the fluid secreted: all substances are capable of passing into the secretions, provided that a sufficiently large quantity of them be conveyed into the blood that furnishes the elements of these various fluids.

The affinity of the salivary glands in particular, produces, however, a great many singular phenomena. If, for instance, iodide of potassium be administered to a dog, vestiges of that substance will be discovered in the saliva for several weeks together. A sort of *circulus* is, in fact, established; iodine passes into the saliva through the elective affinity of the glands; but the animal, which keeps on swallowing its own saliva, impregnated as it is with iodine, absorbs new quantities of the substance, and the process might last indefinitely; but if the animal be strongly purged, the iodine is at once evacuated by the intestinal discharge, and appears no longer in the saliva.

It now remains for us to perform the inverse experiment. The internal surface of glands is endowed with a considerable power of absorption, provided the substances injected into their cavity belong to that class of bodies for which the gland exhibits a certain elective affinity. But when the secreting process is in full activity, absorption is almost entirely suspended; thus (as we have already informed you), if a strong solution of strychnia is injected into a dog's parotid duct, the animal is almost instantaneously poisoned, if the gland is in a state of rest; but if the secreting powers have been previously called into play, the animal resists for a pretty long space of time.

In order to convince you of the rapidity with which absorption takes place in the glands, we shall now inject into the parotid duct of the horse, which has already served for our previous experiment, a solution containing 1-100th part of iodide of potassium; the duct being then tied over the canula, we shall almost immediately discover iodine in the secretion of the parotid on the opposite side—a fact which proves that after passing through the vast extent of the entire circulatory system, the substance injected has been eliminated again by the glands, in an incredibly short space of time.

(The experiment is tried on the horse and succeeds perfectly. The reactions of iodine are not, however, distinctly perceived before a few seconds have elapsed after the injection.)

You see, gentlemen, that although rapid, the elimination has not been altogether instantaneous; but in the horse the circulation is known to be particularly slow; by injecting prussiate of potash into the jugular vein, and testing the blood drawn from another point, Hering has proved that in this animal the blood does not accomplish its entire circuit in less than twenty-five seconds—a fact which sufficiently accounts for the comparative slowness of the process of elimination. In the dog the same result would be more rapidly attained to.

It now remains for us to examine the part which devolves upon the nervous system, in the process of secretion, as exhibited in the parotid glands; and this will, accordingly, form the principal subject of our next lecture on operative physiology.

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EDITORIAL AND MISCELLANEOUS.

THE NEW ORLEANS SCHOOL OF MEDICINE.

In our April number we announced the number of matriculates and graduates in this institution for the session of 1859–60. Surely the friends of the institution could not desire a more favorable report. We, ourselves, can hardly realize that an institution, in this day of widespread competition, should have accomplished in four short years all that its competitor in the same city did in twenty. Nevertheless it is true. The growth of the institution has been rapid; but it has been a healthy growth. The fertility of the soil in which she has been planted already urges her branches widely out; her roots are deeply setting themselves; and those who planted her have ever subjected her to a system of cultivation, which not only presses her onward, but is already causing her to be regarded as the best medical school in the land.

In her first session, 1856–57, the New Orleans School of Medicine numbered 76 matriculates and 26 graduates; in her second session, 1857–58, 126 matriculates and 34 graduates; in her third session, 1858–59, 164 matriculates and 36 graduates; and in her fourth session, 1859–60, 216 matriculates and 63 graduates. And now on the list of forty-one medical colleges in our country we find her legitimate position No. 7. Does the reader think that all this has been accomplished as easily as to write about it? If so let him never engage in a similar enterprise; for he may have neither physical nor mental capacity to withstand the disappointment which inevitably awaits him. To us it is now refreshing to stretch our wearied limbs under the cooling shade of the flourishing tree we helped to plant, and, looking back at the past, smile at the difficulties so triumphantly overcome; but we could draw a truthful picture for the ambitious novice, which, even in subdued coloring, would make him, perhaps, recoil from a like pursuit. There are few men, perhaps, who are not willing to labor faithfully to overcome the natural obstacles which oppose themselves in all pursuits; but there are many who, if they can behold the raging flood of the purely factitious, must recoil at least in disgust. Fortunately it is the nature of man to seek his own experience, believing that those who preceded him erred of their own weakness, and, once in for it, pride comes in to his aid, and he triumphs over all. Were it otherwise the world would go backwards. Had it been otherwise Medical New Orleans would not now be dashing forward with an impetus wholly irresistible.

But we took up our pen to announce some changes in the organization of the Faculty of the New Orleans School of Medicine, which are too important for a mere passing notice, and which will be hailed with general approval by all friends of the institution.

First—The chair of surgery has been divided into two distinct chairs—one of Clinical and Operative Surgery; the other of Principles of Surgery and Surgical Pathology. The friends of this institution know that the ambition of its faculty is to send graduates out best of all fitted to *practice* the healing art. The Charity Hospital affords the best field in the land for thus preparing young men, and the field is to be thoroughly cultivated. Dr. Choppin assumes the duties of the first named chair, and he will give a complete course on all that the title of the chair implies. Dr. Beard has been transferred from the chair of Anatomy to that of Principles of Surgery and Surgical Pathology, and, with a taste naturally directed to this channel, and a mind thoroughly prepared for the duties, he will make the chair even more popular than he did that of anatomy. Dr. A. Peniston has taken the chair of Anatomy, and will devote all his well-known ability and industry to that branch. Not only has Dr. P. been the better prepared for teaching anatomy on account of having become thoroughly conversant with physiology, but he is practically prepared to do the subject justice, for the reason that he has, for several years, been teaching anatomy privately.

Second—The title of the chair of Physiology is changed to that of Physiology and Microscopy, and the faculty have appointed Prof. Austin Flint, jr., son of our eminent Professor of Clinical Medicine, and late Professor of Physiology in the Buffalo Medical College, and in the New York Medical College to the chair. This appointment will necessarily give satisfaction. To be taught properly physiology demands the entire attention of the teacher: in other words the teacher must do nothing but teach physiology. Again, the medical world acknowledges that physiology, to be properly taught, must be taught *experimentally;* this is the requirement of the age in which we live, and the faculty are determined to meet this and every other requirement which promises good to their pupils. Dr. Flint comes to us not only with the prestige of having perfectly succeeded as a teacher, but as one of only two men in our country who devote their entire time and energies to the business, and are truly experimental physiologists. He joins us, too, with all the physical energy necessary to the accomplishment of arduous duties, as well as with a just ambition to be the best.

It is thus that the faculty of this school are determined to go on improving, confident that no factitious obstacles, personal, political, or otherwise, can stop them, now that they have acquired the confidence of their brethren. *Non progredi est regredi*, and we desire no better epitaph over our dust than the line which would reveal the fact, that we were instrumental in establishing the best medical school in the land.

OBSTETRIC PHENOMENON.—In our March number we took the liberty of noticing the fact, that Dr. E. McDonnell, of New York city, had reported in the *Medical Press*, a case of fracture of the fœtal cranium as the result of the uterine action. Not willing to believe that the uterus could drive the head of the child against the pelvic walls with force sufficient to fracture the bones of the head, we politely asked the doctor whether he really believed that such a result could ensue under such a cause, especially where the bones are "unusually developed;" and, also, whether it was not more probable that, in making traction after version (which he had performed) he may have induced the fracture.

In the *Medical Press* for April 7, Dr. McD. replies to us, and we are very sorry to see in his remarks an exhibition of anger which is totally uncalled for and inappropriate, and which should never have been admitted by the editors. We never heard of Dr. McD. before we read his communication; consequently we could not have intended to elicit any other than purely professional phraseology at his hands. We have long been engaged in the study of obstetrics; we take more interest in this branch than in any other; we feel sure that the conclusion arrived at by Dr. McD. is erroneous, and we so expressed ourself. Overlooking this little ebulition of the Dr., however, we renew the consideration of the subject, satisfied that it will interest many of our readers. We are not so tenacious of our opinions as to show anger if they are subjected to animadversion.

Dr. McD. now says that he does believe that the "uterus" *can push the head against the pelvic brim with such force as to fracture the bones,*" especially when unusually ossified; this latter condition rendering the bones, in his opinion, more fragile. He also says that he "is at a loss to comprehend how traction after version could produce a fracture of the parietal bone." Also, he "cannot see why the powerful contractions of the uterine muscles may not fracture the infantile bone;" and he believes it "not only possible, but that it has really frequently happened." Then Dr. McD. adduces authority to support him, viz: Drs. Churchill, Malgaigne and Hamilton. It is only necessary that we shall show, that in the case reported by Dr. McD. the fracture could not have resulted from uterine action, though we adhere to the proposition that under no circumstances is such a result more than barely possible, if even possible.

Dr. McD. says (see *Medical Press* for Jan. 2): "On examining again in the intervals of the pains I found the membraneous pouch flaccid, and could plainly feel the fold of the fumis presenting to the extent of four inches, but could not discover any other part of the child." Then the Dr. concludes that the child's head rested on the brim of the pelvis, and that its body lay across in the uterus, the abdomen forming a convexity looking downwards, thus explaining the descent of the cord, and absence of any other part of fœtus in the presentation." The Dr. waited until 5 o'clock, A. M. (he had been called at 9½ o'clock), when the patient complaining of the severity and frequency of the pains and their abortive results, and he being apprehensive of the rupture of the uterus, he ruptured the membranes. Did he pass his hand in with the intention of turning, and preserving the presence of the waters with that hand, after the rupture of the membranes, perform the version under circumstances most favorable to both mother and child, as is taught the world over? No: "still hoping that the flow of the water might occasion the wished for change in the presentation (!) I delayed turning a little longer." Of course he was disappointed in this hope, and passing his hand "within the os uteri," he discovered a hand and the left side of the head, "the os pubis lying a little to the left of that bone." He now tried to effect a dislodgment of the head, but it being immovable, and the pulsations of the cord having "all but ceased," he proceeded to turn, said operation being performed with difficulty.

Now, at what time was the head fractured previous to the operation? Surely Dr. McD. will not claim that it was done previous to the rupture of the membranes, and when the uterus is really expending its force on the waters which surround the fœtus. We would not impugn his intelligence so far as to presume that he claims the fracture under such circumstances. But did it occur after the waters were evacuated, and before the version? Surely not. First, the Doctor only waited "a little longer" after rupturing the membranes, and the dry labor was, therefore, not at all protracted. Secondly, the head was resting on the brim of the pubis, and as the Doctor had to pass his hand within the os to touch the head, of course the head was within the uterus. If the fracture could occur at all, then, it must occur as the result of the head being pushed directly against the pubic brim, which the plainest physical laws would make us believe most highly improbable, even were the naked parietal bone pressed against the naked pubes; and which reason pronounces next to, if not absolutely, impossible, when we reflect that between the naked bones were interposed the covering to the pubic bone, the thick covering of the cranium, and the thick and elastic wall of the uterine neck.

Read your own report over, Doctor, and as surely as the sun rises you will see that that fracture never occurred prior to the operation of version.

But Dr. McD. does not see how the fracture could occur when pulling the head through the pelvis. There are two points in the pelvis, and only two points, against which the head can be forcibly dragged so as to induce fracture. These are the promontory of the sacrum and the spines of the ischia. These are the *convex* points of the obstetric pelvis. If the head of the child be forcibly dragged against these (especially the former—the latter, in their really normal condition, being but slight convexities), fracture may result. We have not the work before us, but Dr. McD. can certainly find authority for this in Simpson, of Edinburgh. That the *concave* portions of the pelvis, impinging against the convex head—the two fitting each other, as it were—can result in fracture of the cranium under uterine contraction, we cannot admit.

Dr. McD. cites Churchill as authority that fractures of the cranium may occur as the result of uterine action. All that Churchill says in the quotation of Dr. McD., is that such a result *may* occur. The Doctor does not quote Malgaigne's language, and after diligent search, we cannot find an item on this point. As to the language quoted from Hamilton, a re-perusal must satisfy Dr. McD. that he refers to the long bones, as he speaks of the fractures occurring from "contraction of the neck of the womb, while the child is *in transitu.*"

But why talk of authorities on a point like this? While we accord due deference to the opinions of others, we cannot consent to enslave ourself to the so-called authority. He who works in the mine of medical literature, if he asserts his privilege to think for himself, must soon learn that there is scarcely an absurdity that cannot be well supported by high authority; and in this same branch of obstetrics is this preëminently true. Should an illustration be called for, we invite the reader's attention to *authority* on the subject of the liquor amnii. It is absolutely wonderful to see how the human mind can err.

We have practised obstetrics, as student and physician, fifteen years, and in this time we have seen one case of fractured fœtal cranium, and this was the result of the practitioner's pulling so hard on the body of the child that, when the head at last suddenly burst through the vulva, he is said by the nurse to have fallen flat on his back on the floor. Of fracture of the long bones we have seen but two cases, and these bones were fractured by the practitioner in efforts to deliver the extremities. We have never seen a woman, even after most severe and protracted labors, give birth, unaided, to a child with a fractured bone. Surely, if such cases be frequent, as Dr. McD. believes, we ought to have seen *one*.

PRIZE OFFERED.—From our exchanges we take the following, which should be of interest to many of our readers:

"*To the Medical Students of the United States of America.*—I will give a premium of $ 250 for the essay which shall be judged the best, by competent judges, on the 'Anatomy and Physiology of the Animal and Organic Nervous Systems.' The essays to be sent to me on or before the first of March, 1861. I will likewise give a second premium of $ 250 for the best essay on the same subject; the essays to be handed in on or before the first of March, 1862.

The medical students who shall be declared the successful competitors will be required to declare, on their *word* and *honor*, that the essays are their own production, and that they have not been assisted by any legally qualified medical man.

"JOHN O'REILLY, M. D.,
230 Fourth st., Washington Square, N. Y.

"March, 8, 1860."

"AMERICAN MEDICAL ASSOCIATION—BREAKERS AHEAD." Under this title the Nashville *Medical Record*, for April, has some remarks in relation to some points of discussion which will probably be brought up at the next meeting of the Association, at New Haven. One of these "breakers" is said to be the subject of the "alleged conduct of the University of Virginia (and other Southern colleges), in tampering with the students in Jefferson Medical College."

If the American Medical Association meets for the purpose of discussing such disgusting subjects as this, then the sooner it dies the better. If we have anything approaching a correct view of matters, then is the mission of the Association a far higher and nobler one than that indicated. Let these quarreling colleges manage their own business, and let the Association hold itself aloof from and above all such dirty work.

But we are utterly disgusted with this talk about Southern colleges "tampering" with students at the North. It is meet that those Northern institutions which make such charges should substantiate them. We have looked in vain for a single item of proof against even the Medical College of Virginia, which, according to the current gossip, would seem to be most deeply concerned in the matter ; we have seen no evidence adduced against any college out of New Orleans, and we know that none can be shown against the college with which we are connected. As the matter stands, then, the whole ground of complaint is against the Northern colleges concerned, for they have issued a gross insult and a vile slander against their Southern brethren, (?) which they cannot prove and will not apologize for. Prove such conduct as is alleged against one of our colleges, and we will be the first to condemn; but until it is proven, we hold that we are insulted and slandered, and unless we are vastly mistaken in the character of our people our Northern neighbors will suffer for it.

We earnestly hope that the man who attempts to sully the proceedings of the association by introducing such a subject will be hissed throughout the hall. Let the association admit this miserable school quarrel, and it will for ever have its hands so full of matter of the kind that all other topics will be forgotten. Let the colleges themselves establish and enforce their own code of ethics. Of this we despair, because we know not the man who would then "cast the first stone." Where is he? Stand from under gentlemen!

"SOUTHERN MEDICINE."—In one of our last exchanges (the *Atlanta Medical and Surgical Journal*) we notice some appropriate remarks on this subject: amongst others the following, which will show in what estimation New Orleans is being held in a medical point of view.

"What cannot be furnished by Charleston, Richmond, Augusta, Savannah, Atlanta, Mobile, or Nashville, can surely be found in New Orleans, where immense hospital facilities and the greatest possible variety of disease are spread out, without obstruction, to the inquiring student, and where some of the best talent of the whole country is congregating in schools, which we hope soon to see rivalling, even in their classes, the greatest schools of Philadelphia." Our exchange's hopes are sure to be realized.

To Our Subscribers.—On the cover of our Journal we have placed a standing notice that henceforth we have no collectors. Also, that *all* communications must be directed to Dr. D. Warren Brickell, New Orleans. Dr. B. attends to all the business of the journal, and letters containing money, if directed as above, instead of to the editors of the *Gazette*, or to him as editor, will more probably elude the observation of those disposed to appropriate the contents.

Our thanks are due to many of our prompt paying subscribers, but we must remind many others that the third number of vol. 7 now goes to them and they are still delinquent. A number of our old delinquents, too, have become penitent and acknowledged their great sin by paying up; but we have a list of *more than eighty* who owe us from $20 to $30! Pay up, gentlemen, and we will all feel better.

Sewerage and Drainage of Cities.—At the meeting of the American Association held at Louisville, Ky., May, 1859, the undersigned was appointed chairman of a committee to report on the "*Influence of Sewerage and Drainage of large cities on public health.*"

Any suggestions, data, sanitary, or topographical reports, or other matter having reference to sanitary police, will be thankfully received and duly acknowledged.

A. J. Semmes, M. D.

New Orleans, April 1860.

BOOKS AND PAMPHLETS RECEIVED.

"*Clinical Lectures on Certain Acute Diseases.* By Robert Bentley Todd, M. D., F. R. S., etc., etc. Philadelphia: Blanchard & Lea, 1860."

No one can read these lectures without acknowledging their high value to the profession; but it is with a melancholy pleasure, indeed, that we receive them, as they are the last gift of a most valuable member of our profession to his brethren.

"*A Guide to the Practical Study of the Diseases of the Eye: with an Outline of their Medical and Operative Treatment.* By James Dixon, F. R. C. S., etc. From the second London Edition. Philadelphia: Lindsay and Blackiston. 1860."

"*A Treatise on Medical Electricity, Theoretical and Practical; and its use in the Treatment of Paralysis, Neuralgia, and other Diseases.* By J. Althaus, M. D. Philadelphia: Lindsay & Blackiston. 1860."

These are two very interesting and valuable little handbooks, and are gotten up in handsome style by the enterprising publishers.

"*Dental Anomalies and their Influence upon the Production of Diseases of the Maxillary Bones.*—By Am. Forget, M. D. C. L. D., etc. Paris: Victor Masson. Translated from the French. Philadelphia: Jones and White. 1860."

This is a highly interesting and valuable treatise, gotten up in elegant pamphlet form, with fine illustrations. It is sent, free of postage, for 40 cents in postage stamps, to all who wish it.

EXCERPTA.

Do Bad Smells Cause Disease?—The tendency of the human mind to rest satisfied with any belief that is authoritatively asserted, is too well known to require any comment. Philosophers of all kinds are no more exempt than other people from this easy style of dealing with difficult problems. Medicine is, we think, especially chargeable with cherishing pet answers to questions that force themselves unkindly on her; and we think that the way in which she has made up her mind as to the causes of various kinds of fevers is an example of this style of cutting the Gordian knot.

Of late years, it must have struck all our readers that pig-styes, dirty pools of water, open privies, ash-heaps, etc., have been declared highly criminal, and on all occasions even adjudged guilty of producing any kind of fever or bowel complaint that may have broken out in the neighborhood. If a child happen to suffer typhus in a farmhouse, it is the mixen at the end of the barton that caused it. If an epidemic of English cholera befall a village, it is traced to the duck-pond by the road-side. If in a wealthy household the inmates are stricken with diphtheria, some open sewer, close at hand, has, as a matter of course, been the cause. So accustomed are we to hear this sort of reasoning resorted to on all occasions, that one feels a little difficulty in expressing doubts as to the certainty with which the effect is unhesitatingly traced to its cause. Nevertheless, we think there is at least sufficient evidence to cause reflecting minds to pause ere they give in their adhesion to the general opinion, and thus shut their eyes to further research and inquiry. Dr. Watson, has, we know, stated it as his distinct opinion, "*that neither animal nor vegetable decomposition is sufficient to generate fever of any kind;*" and the researches of Dr. Guy, and other observers, have certainly gone some way to support that opinion.

Dr. Guy, in his very interesting contribution to the *Journal of the Statistical Society*, on the health of nightmen, scavengers, and dustmen, gives us a mass of statistical facts which, it must be confessed, run counter to the generally received opinion, that foul animal or vegetable emanations are the fruitful source of disease. This class of men, without doubt, spend their days in the very midst of filth of all kinds. He says:

"In most of the laystalls or dustmen's yards, every species of refuse matter is collected and deposited—night-soil, the decomposing refuse of markets, the sweepings of narrow streets and courts, the sour-smelling grains from breweries, the surface-soil of the thoroughfares, and the ashes from the houses."

This heterogeneous mass the scavengers or "hill" people have to sort or to pass through sieves, so that the emanations arising therefrom must be brought into intimate relation with their lungs and skin. If fever and diarrhœa are so clearly traceable to the vicinity of these so-called noxious materials, surely the scavengers ought to be a poor, fever-stricken race. A medical examination, however, of this class of workmen as compared with brickmakers and bricklayers' laborers, proves that the scavenger is comparatively exempt from disease. Thus, among a number of men examined in each of the three classes, it appeared that the numbers attacked by fever were, among the scavengers, 8 per cent.; among the bricklayers' laborers, 35.5 per cent.; and among brickmakers, 21.5 per cent.

This result seems extraordinary enough; but it may be argued that these men do not live in the laystalls or dust-yards, and therefore that their exemption from fever may be attributable to this; but what can be said if the master dustmen and their families, who live all their lives in the midst of these heaps of so-called fever-nests, are healthy. Dr. Guy says:

"I do not think that, whether in town or country, such another body of men (as master dustmen) could be brought together, except by selection; and it is not going too far to assert of them that, if the comparison were limited to the city of London, or our large towns, no score of selected tradesmen could be found to match the same number of scavengers brought casually together."

Unless we suppose that the scavengers get used to this so-called miasmatic atmosphere, or that after a time it no longer affects them, we cannot see how the foul emanation theory can hold water. Nature cannot work in one place differently from another. Night-soil must be just as deadly in an open yard in London as in the country. But here we have the experiment tried on a larger scale, of a whole class of men subjected to foul emanations, and yet they are far from being an unhealthy race, and are not nearly so prone to fever or bowel disease as the brickmakers' laborers.

We are far from wishing it to be understood, however, that we do not consider foul emanations as dangerous or baneful under any circumstances. In our opinion, they become noxious when much concentrated. Our houses, for instance, are built on the principal of a bell-glass, and our drains and privies, and all other impurities, if allowed to give off a deleterious miasma, most certainly do become most virulent sources of disease. But, in the open air, we think it very doubtful whether these emanations are ever the cause of injury to man.

Let us watch with Dr. McWilliam a still more gigantic experiment on the health of the Thames waterside people, which has been going on for years, and is still proceeding. The whole sewerage of two millions and a half of people, has, within the last ten years, been turned into the metropolitan stream. Year by year its waters have become more contaminated, and its smell more disgusting. It should follow that the health of the waterside community is proportionally decreasing; that febrile complaints cholera, and diarrhœa, are alarmingly on the advance. But what is the real state of the case? Dr. McWilliam, in his report for the year 1858, on the health of the Water Guard and Waterside Officers of Her Majesty's Customs, says:

"As respects bowel affections, in which I include diarrhœa, choleraic diarrhœa, dysentery, etc., the types of those forms of disease, which in this country noxious exhalations are commonly supposed to originate, we find the additions during the four hot months of the past year from this class of complaints 26.3 below the average of the corresponding period of the three previous years, and 73 less than those of 1857."

The quantity of putrescent animal and vegetable matter in the Thames has been going on increasing; but the illness generally attributed to the emanations arising therefrom has been decreasing! We know that many will urge that all the combustibles (if we may use the term) being thus accumulated, it only requires the match to be applied, to find epidemics raging like wildfire. But the year before last, cholera did break out on the banks of the Lea, and there died out, apparently from want of sustenance. This year, according to the *Lancet*, cholera, veritable Asiatic cholera, has been on board the Dreadnaught; yet it has not spread, and there seems no likelihood of its doing so for this season at least. As Dr. McWilliam truly says, "it is nowhere sustained by evidence that the stench from the river or docks, however noisome, was in any way productive of disease." It is true that one waterman, in June last, was said to have died of Asiatic cholera, and that his death was ascribed to river poison; but, as the eminent observer whom we have just quoted, correctly remarks, "it is opposed to all analogy, and to the usual order of nature, and therefore unphilosophical, to suppose that a cause so extensively diffused should have been so singularly limited in its effect."

Greatly doubting, as we do, the alleged ill effects of foul emanations in the open air, upon human life, we nevertheless do not think that the crusade against filth should for one moment be relaxed. A bad smell may be no more unhealthy than a bad taste; but we should, if possible, avoid the one as much as the other. What we should, above all things, avoid, however, is the falling into the error of supposing that bad smells are the indubitable sources of many puzzling diseases, and of thus hardening our minds against investigations of the kind which were instituted a year or two ago by Dr. Barker, and which, when completely carried out, will enable us to decide what the noxious principles are which make all the difference between an unpleasant and a malarious odor. *Chicago Journal.*

IMMENSE ANAL PROLAPSUS—NEW OPERATION—CURE.—This case was presented to Prof. Hamilton, at the Penitentiary Clinic, December 7. An Irish lad, named Quin, aged twenty, pale and feeble, with great muscular relaxation, has been tormented with prolapsus for a long time.

The protruded mass was of an exceedingly florid color, and of the shape of a truncated cone. The ordinary length of the cone was full four inches; the base, resting upon the integument, was ten and a half inches in circumference. The truncated extremity was about an inch in diameter.

After careful and repeated consideration of all the circumstances of the case it was determined to yield to the entreaties of the patient, and incur the hazards of the following operation:

The bowels having been thoroughly evacuated, and an injection of warm water, containing a drachm of laudanum administered, he was directed to effect a medium protrusion. Placing him upon his knees, and throwing his trunk well across a chair, an assistant forced the nates well aside, so as to expose the tumor's base. With a long, large needle, made for the purpose, and loaded with a strong and rather large whip-cord, the two ends of which were kept even—one being colored with ink, the base was now transfixed perpendicularly, so as to carry the needle, and of course the two cords, through a ring, attached to a handle by a shaft, and carried up into the cavity of the tumor. The ring was now pulled out, bringing with it, of course, the white and black cord. These were now cut in two, giving four ends hanging from the interior, and an equal number from the exterior. In the same manner a transfixion was now made in a horizontal direction, doubling the number of ligatures hanging from the interior and exterior respectively. By a little reflection it will be seen, that by tying two vicinal strings of the same color, which hang from the inside, then drawing on the extremities of the same which hang from the outside, the entire ring of protruded tissue, constituting the base, may be ligated and strangulated in four parts, which will be equal, if the transfixions are accurate. Furthermore, it will be observed that the traction necessary to the induction of strangulation, acts equally toward and from the centre of the anus, and that, accordingly, it is not occluded by the operation. After its completion, the index finger could readily be passed within the ligatures.

Twenty-eight hours after the operation the pulse had reached 128 per minute ; at the end of forty-five hours it numbered 114 ; and vomiting, which had been a prominent and distressing symptom had subsided.

At the end of four days the pulse was 96 per minute ; patient was resting fairly ; had but little pain, and was relishing very fair supplies of food. At this time the protruded mass was distinctly shaken, synchronously with the pulse. The skin about the anus, perineum and nates, seemed perfectly healthy.

From this time to the end of the eighth day there was no change worthy of note. Sphacelation of the summit, with separation of the slough, leaving about one-half of the length of the tumor, had now occurred, leaving a surface which exhibited a degree of sensibility and vascularity, not admitting of the reasonable expectation of further sloughing from the first ligation. The ligatures were accordingly withdrawn. Ulceration had occurred about them to such an extent that the orifices from which they were withdrawn would readily admit of the introduction of a finger. The intervening masses of tissue, embraced within the ligatures, were reduced to the size of a finger, and were very dense. A curved probe, armed with a ligature, was now passed readily round these masses, and they were subjected to a second ligation.

From the ninth to the eleventh day, inclusively, the patient was much more comfortable than at any previous time. Previous to this time the catheter was in daily requisition, but urination was now readily effected. The pulse ranged at about eighty; patient rested well, with almost perfect exemption from pain; on each of the two latter days there were fecal evacuations. Discharges of flatus were present from the first, and throughout the case.

On the thirteenth day, three of the ligatures last applied had separated. Daily fecal evacuations had occurred for several days; the remaining ligature, and the remnant of the protruded mass, were about ready to come away, and the general condition of the patient was, in every way, such as not to admit of a remaining doubt as to the complete success of the operation.—*Ohio Medical and Surgical Journal.*

A Few Globules for Homœopathy.—Having gone through a course of homœopathy, and fairly digested its merits, we have come to the following inevitable conclusion: "What you tell us that is true is not new, and what you tell us that is new is'nt true."

The latter part of our judgment, or "what you tell us that is new," has reference to the assertion of the homœopaths, that they cure an average of a hundred and five per cent. of all their cases, and this, too, by the administration of infinitesimal doses.

With regard to the former portion, or, "what you tell us that is true," we mildly take it upon ourselves to assert that the doctrine of "*similia, similibus curantur*" was known and practised long before Hahnemann, or any other man of their school, saw the usual polychromatic light suspended over his medical door. Instances of this are as plentiful as cases in the divorce courts. From the beginning of the world, ever since Mr. Bacchus planted the vine, we have every reason to believe that men have occasionally taken "a little too much," and cured themselves next day, "by a hair of the dog that bit them"—a clear case of "*similia similibus.*"

Again, "setting a thief to catch a thief," is "as old as the hills"—even those that "flesh is heir to."

There is yet another instance of this doctrine, well known in days of yore, in the following nursery lines:

> "There was a man of Teddington, and he was wondrous wise—
> He jumped into a quick-set hedge, and scratched out both his eyes;
> And when he saw his eyes were out, with all his might and main,
> He jumped into another hedge, and scratched them in again."

We leave homœopaths in the midst of this quick-set hedge, to get out of it the best way they can. It is so clear a case of "like curing like" the blindest bigot in the efficacy of globules must see it. There is blindness produced by the wise man of Teddington jumping into a hedge, and scratching his eyes out; and then by going through another hedge, and the same process of scratching his eyes, he recovers them in less (to speak vulgarly) than two winkings.

Although we fancy we must before this have convinced all reasonable persons that "like having the power of curing like," is no new idea, still we cannot conclude without quoting one last, but no small authority upon the point, which we imagine is dead against the atomic theory of infinitesimal doses. We do not recollect ever having heard it quoted by the homœopaths themselves in support of their argument. We therefore beg, in all good feeling, to present it to them for their special benefit and behoof:

> "A little money is a dangerous thing—
> Drink deeply or touch not the Pierian spring;
> There shallow draughts intoxicate the brain,
> *But drinking deeply sobers us again.*

This last line leans a little to the "*similia similibus*" creed; but we make the homœopaths a small present of it, as a proof we do not wish to be hard upon them. Meanness is the test of a little mind, and we do not profess to deal in little things, as though we were no better than a homœopath.—*Punch*.

DIPHTHERIA.—Dr. Alonzo Clark, of the College of Physicians and Surgeons, has published a lecture on this subject, characterized by his usual modesty and good sense. The following are the conclusions to which he arrives, viz:

1st. That inasmuch as diphtheria is a *manifestly constitutional* disease, so must our main reliance be placed on *constitutional treatment*.

2d. As the disease is of an *asthenic* type, the remedies employed must be such as will give tone to the system. The best of these are the fluid preparations of iron, quinine, etc., together with an invigorating diet, and the occasional use of stimulants.

3d. The administration of mercury, with a view of obtaining its *constitutional* effects, is a doubtful expedient, but the application of *dry calomel* to the ulcerations of the throat is of decided benefit.

4th. The application of the nitrate of silver to the *membrane itself*, is of no special service, whereas, if applied to the parts immediately around the membrane, it tends to prevent its further extension.

5th. The administration of chloride of potash, both in the form of a gargle and as an internal remedy, though not, as was claimed, a specific in this disease, is still of some benefit, and should, therefore, form a part of our treatment.—*American Medical Gazette.*

SPECIALTIES IN MEDICINE AND THE PARIS FACULTY.—Early in last year the Minister of Public Instruction addressed the following question to the Paris Faculty of Medicine: "Are the various branches of Medical Science sufficiently represented in the teaching of the Faculty?" This query was evidently but a polite mode employed by the Minister of acquainting the Faculty, with his opinion of the insufficiency of its instruction, as also with the liberality of his disposition to provide the means for rendering it complete. He, however, had the courtesy to leave to the Faculty the merit and honor of taking the initiative in the matter. At the end of three months the Faculty replied to his generous provocation with the following resolution, carried by a large majority: "That the creation of chairs for specialties would be a very disastrous measure, which would alter the proper character of education, and would prove of no utility for the practical instruction of the student." M. Latour, in the *Union Médicale*, observes: "We hope that the liberal intentions of the Minister will not be discouraged by the resistance of the Faculty. History teaches us with what difficulty corporations accept any innovation which disturbs their quietude. It is not a century since the old Paris Faculty would have felt itself dishonored in seeing any of its chairs bestowed upon the surgeons. They now occupy nearly one-half of these. The spirit of progress has dissipated all these contemptible vanities. Let us still trust to it." M. Diday, of Lyons, has published an eloquent protest against the decision of the Paris Faculty, maintaining that it is the duty of the Faculty to furnish a complete course of instruction to its students, which at the present time it does not do. He maintains that specialties have been the source and cause of the greatest scientific advances, and that the very men who are so jealous of allowing them to be taught are only too happy to call in their aid in the difficulties of practice. Even as it is now, the official teaching is much concerned with specialties. Surgery, taken upon its whole is but a specialty ; operative surgery is but a specialty of a specialty; and obstetrics, hygiene, legal medicine, pharmacology, materia medica, etc., are one and all but specialties. M. Diday, insists, at great length, upon the absolute necessity of founding two new specialties in the Paris Faculty, that of Psychiâtrie and of Syphiliographie.—*Medical Times and Gazette.*

Zinc instead of Lead Paint.—In consideration of the deleterious influence of lead paint on those whose occupations are in making or applying it, and the possible injury to the public by its general use in dwelling houses, Dr. Hassall, of London, urges the substitution of zinc for lead paint.

He presents the following advantages of zinc as a material for paint: 1. It preserves its color for a much longer period; and hence is more durable. 2. Its cost is somewhat less. 3. It does not give rise to colic, palsy, wasting of the arm, or any other of the often formidable diseases and symptoms which so often result from the employment of the lead paint.

The objections urged against its use are, that it possesses less body, and that it requires to be laid on in a different manner. These are, however, but minor objections; the first, which is not well founded, may be met by the application of an additional coat of the zinc paint; and the second, by a little practice on the part of the workman. Another objection of the master—the force of which the public will be able to appreciate—is its great durability, which renders a repetition of the painting necessary only at very long intervals.

The rapidity with which white-lead paint loses its color, especially in towns and cities, passing successively through several shades, of yellow, brown, and black, most persons have had opportunities of observing; it has scarcely been laid on a week, in most cases, before the discoloration becomes perceptible. In closets and in ships, from the action of the bilge water, the discoloration is extreme, and it is this circumstance which has led to the very general use of zinc paint for vessels. The cause of the change of color of the lead paint is this: the sulphuretted hydrogen diffused through the air, especially of cities and in the vicinity of decomposing organic matter, unites with the lead of the paint, forming a black sulphuret of lead; indeed, lead is one of the most delicate tests which chemists possess for sulphuretted hydrogen.

Most persons have also noticed the discoloration of the ceiling over gas lights, and have probably blamed the gas as the cause ; but there is another cause which must share the blame. White lead is sometimes mixed with the lime used to wash the ceiling, a fact which, of course, fully explains its speedy discoloration. Were oxide of zinc resorted to in this case, no such result would ensue.

In a sanitary point of view, therefore—and it is this which I desire to advocate—the substitution of zinc for lead paint is greatly to be desired. It rests with the medical profession to enlighten the public on the subject, and thus insure the more general adoption of zinc as a paint.—*Med. and Surg. Reporter.*

CATHETERISM OF THE UTERUS VERSUS ERGOT OF RYE.—M. E. Reyneir mentions in the *Gazette des Hospitaux*, of the 1st inst., that he prefers exciting the contractions of the uterus by mechanical means, rather than by the ergot, and mentions the following case :

A lady, whose age is not mentioned, was confined, in 1856, of a healthy child, parturition presenting nothing unusual. On the 22d of July, 1858, M. Reyneir was sent for to assist her in a second confinement at full time. After the discharge of the amniotic fluid, the pains suddenly ceased, and the patient became greatly alarmed. On examinatian, the head was with difficulty felt above the brim, the os uteri being dilated to the size of a two shilling piece. M. Reynier, thinking it necessary to complete the labor, placed the index and middle fingers of his left hand in the vagina, and upon these glided an elastic catheter, which he introduced into the uterus. When two thirds the length of the instrument was fairly in the womb, it was left *in situ*, and six minutes afterwards faint uterine contractions occurred ; they gradually became less faint, following each other more closely, and when the head was on the perinæum the catheter was withdrawn. A well-formed, living, and healthy child was soon born, and the mother made a good recovery.

We cannot help thinking that an elastic catheter, which is, as a matter of course, transversely rigid, *may*, in lying between the parietes of the uterus and the head of a child, do some mischief, either as regards the womb or the fœtus. Perhaps a stream of warm water forced through the catheter would have sufficiently excited the energies of the uterus, and the instrument might have been withdrawn when the contractions had again begun. The case is, at all events, worthy of note.—*Cincinnati Medical and Surgical News.*

STATISTICAL RESUME OF SIXTY-ONE CASES OF OVARIOTOMY, UNDERTAKEN OR EXECUTED IN GERMANY. *By M. G. Simon.*—Of sixty-one females, in whom the operation was completed, or only commenced, forty-four succumbed within a short time after the operation.

In five cases, the operation did not procure any amelioration, or but merely a temporary benefit. There were but twelve cures.

The operation could be terminatad only in forty-four of these cases. Out of this number, there were thirty-two deaths by the operation alone. One woman, who had removed from her a multilocular and colloid cyst, died eight months later, with cancerous productions of the pancreas, the lymphatic ganglions, and the lungs. A radical cure was effected in eleven cases.

The operation remained uncompleted in fifteen cases, for the reason that the tumors had contracted intimate adhesions with the neighboring parts; eleven of these patients died immediately. In the others, the operation remained without advantage, or produced but a temporary amelioration.

In two cases there had been a mistake in the diagnosis; of these there was one death and one recovery.

The statistics published anteriorly were less disastrous. According to the figures of M. Frölich, the operation of ovariotomy would be more grave than the Cæsarian operation, for which the mortality is sixty-three out of one hundred, according to Kaiser, and two out of three, following other authors. (*Scanzani's beiträge zur Geburtskunde.*)

We had published in 1856 (page 788, *Gaz. Heb.*), a *relevé* of M. Fock, who analyzed a more considerable number of ovariotomies than this of M. Simon, and who reports a mortality of 120 from 292, *plus* 52 relapses. It is apparently shown that ovariotomy had afforded its most deplorable results in Germany; but there is reason for believing that this difference is caused by some accidental circumstance, such, for example, as giving publicity equally to failure and to success. However this may be, the last English summaries are far from being so terrifying as this of M. Simon, and Dr. Barnes has not feared even to advance, recently, to a Medical Society of London, that we are not only authorized to practise ovariotomy, but that it is a serious duty to recommend an operation capable, using his expression, of saving the lives of two hundred patients out of three hundred, affected with incysted dropsy of the ovary, and to refuse the afflicted this benefit would be to desert their cause. (*Lancet*, July, 1858.) It is proper to remark, that the *relevé* of Dr. Barnes only contains one hundred and three cases (*Statistics of R. Lee, and twenty-one cases published since*), and to which it is necessary to add, precisely, these sixty-one cases of M. Simon. Dr. Barnes, moreover, was not acquainted with the statistics of M. Fock, the most considerable of all, and which remain very far from two hundred cures out of three hundred.—*Translated from the Gazette Hebdomadaire, No.* 3, 1860, *for the Boston Medical and Surgical Journal, by O. D. Palmer, M. D., Pa.*

A CASE OF EXTREME EMACIATION, THE RESULT OF OBSTINATE VOMITING IN PREGNANCY. *By Dr. William Tyler Smith.*—A girl, aged nineteen, unmarried, was admitted into St. Mary's Hospital in July last. Obstinate vomiting, at first supposed to depend on cerebral disorder, continued from the time of her admission. She became so extremely reduced in flesh, that at the end of six weeks her weight was only forty-seven pounds and a half. At this time she was unable to move in bed; delirium was frequent, bed-sores appeared over the sacrum and nates, and she appeared to be dying. Pregnancy was now suspected. The catamenia were found to be absent; the breasts were full, notwithstanding the emaciation of the rest of the body, and the uterus had increased in size. Remedies had been of no avail. She was too weak to allow of artificial abortion. A nurse was put by her bed-side, to give her a single teaspoonful of nourishment every half hour. The body was rubbed with oil, and beef-tea injections were administered. Under this plan the sickness ceased; the quantity of nourishment was slowly increased, and she improved in strength, and became comparatively stout. Pregnancy went on to December 3, when she miscarried at the fifth month, and is now recovering.—*Maryland and Virginia Medical Journal.*

URINARY CALCULI.—*Translated from the Gazette des Hôpitaux, by* C. T. SIMPSON, *M. D., Cincinnati.*—M. J. Cloquet communicated to the Academy of Sciences the two following observations:

Observation 1st.—Urinary calculus in a new-born child.

The observation of this pathological condition, which has been communicated to me by Dr. Burdel, physician in chief to the Hospital of Vurzon, appears to me should be of interest to the Academy, on more than one account. Cases of this kind are very rare, though the Academy possesses some examples, to which these are now added. Dr. Burdell extracted this calculus from the urethra of an infant five months old. The foreign body came from the bladder, and being too voluminous to be expelled, it became arrested in the inferior portion of the canal. Arriving there, it gradually became augmented in volume, dilating the part of the urethra where it became engaged; the parents having observed that, a short time after its birth, the infant urinated very rarely, that it cried much, was inconsolable, and that sometimes it remained thirty or forty hours without passing urine; also, that the bladder became enormously dilated and passed beyond the level of the umbilicus. When the child was presented to Dr. Burdel, the urine escaped drop by drop only, and was very acid. The bladder projected considerably over the pubis. The stone, as it was felt with the finger, formed a nodosity in the course of the canal; a simple incision sufficing for its seizure and extraction. After its extraction, the wound was closed by a *serre-fine*, and became completely cicatrized by the fourth day.

I have examined the calculus, which was sent to me with the above report by my honorable *confrère*. It is regularly elongated and rounded, thicker at one, than the other of its extremities, weighs forty-eight centigrammes (nearly seven grains), and is of a greenish-gray color. Its surface, rough and unequal, is covered with little papillary projections, which led me, at first sight, to recognize it as a mural calculus, composed of oxalate of lime, though certain uric acid calculi present the same mammilated appearance ; but these last are less rough, and softer to the touch than those formed by that calcareous salt. My opinion, in this regard, has been confirmed by the analysis that our *confrère*, M. Fremy, has had the kindness to make of that urinary concretion. The calculus, writes M. Fremy, is formed principally of the oxalate of lime, containing only traces of phosphate of lime and an azotic organic compound of an albuminous nature. It contains neither uric acid nor ammonio-phosphate of magnesia. It is to be regretted that they had not analyzed the urine of the infant, the extreme acidity of which they alone make mention.

Observation 2*d*.—Two voluminous urinary calculi found in the bladder of a wild boar.

The two urinary calculi which I present to the Academy were found in the bladder of a young wild boar, by one of our corrospondents, M. Chevandier, of Circy (Meurthe), who sent them to M. Isidore-Geoffroy Saint Hilaire, who had proposed to me to examine them and present a report to the Academy on the part of its correspondent at Circy. The following were the facts which they furnish me :

The boar was two and a half years old, was very fat, and did not appear to feel, in the chase, the disease with which he was attacked. This was, in the knowledge of M. Chevandier and all the neighboring hunters, the first example of a similar affection in the wild boar.

The calculi in question weigh, the one about nine grains, the other about eight and a half-grains; they are both of a yellowish-fallow color, bordering on to brown. Their weight appeared considerable in relation to their volume.

The largest of these calculi is triangular, and each of the three faces which limit the obtuse angles are slightly convex, and remarkably polished, like ivory. The second calculus, a little less in size than the preceding, is less regular in form, although it also presents three polished faces, one larger than the two others, and which, instead of being convex, as those in other concretion, are concave, and adapt themselves to each other, after the manner that one sees in the contiguous surfaces of bones, in many of the diarthroidial articulations. The flattening of the facets, at points of contact, in multiple calculi, does not depend only on the friction that these solid bodies experience, the one against the other, by the movements of the body and those contractions of the bladder that they themselves cause; as is very generally admitted, it is much more the result of the difficulty experienced in crystallization, by the incrustation of urinary salts on the parts subjacent to the concretion, in the manner that I have demonstrated in a *Mémoire sur les Calculs Urinaires*, to which the Academy awarded the prize in 1822.

The crystallization of the salts of the urine is only *slower* at the points of contact, in multiple calculi, than on their free parts, which are constantly bathed in the liquid where the salts are in solution. The section of one of these calculi, made perpendicularly to the surfaces of contact, proves the truth of the mode of growth or increase that I have indicated for the layers or strata of calculi with contiguous facets. In effect, instead of being worn away, cut, or broken off, as would be the case if the facets were due to friction alone, the subjacent concentric layers exist in the same number all around the central nucleus, only they are infinitely thinner, on a level with the faces of contact of which they give the direction, while their thickness and curvature become the more marked as they approach the angles or parts which are exempt from contact and pressure from another calculus.

The centre of the calculus is occupied by an oblong nucleus, formed of mixed crystals, irregularly agglomerated, of a yellowish-brown color, alternating with a pale or dark yellow. They observe, that in their formation around the central nucleus, the layers take the disposition that they preserve, in a measure, as the calculus becomes augmented in volume. According to M. Fremy, who has made an analysis of these calculi, they contain—

Ammonio-phosphate of magnesia,.......	about 13 grs.
Tribasic phosphate of lime.............	2-7ths.
Azotic organic matter.................	4-7ths.

The large quantity of ammonio-phosphate of magnesia found in these calculi of a wild boar, seems to give interest to the analysis made of them.

On the duration of life among Medical Men.—From the statistics of over 1000 persons of different occupations, who died within the last 100 or 150 years, at an age of at least 80 years, collected by Faber, and communicated to the *Würtemberg Correspondenzblatt*, we learn that among these long-lived persons, there were:

1. Authors and learned without special profession, 86.
2. Statesmen and diplomatists, 96.
3. Clergymen and theologians of all beliefs, 150.
4. Artists, 167, (painters, engravers and sculptors, 72; poets, 42; musicians and composers, 26; actors, dancers

and circus riders, 9, among whom were Franconi, at 98, Noverre, 105, and his two sons at 82 and 83.)

5. Military, 190 (army 159, navy, 31).

6. Naturalists and physicians, 192 (naturalists and physicians not in practice, 58; practicing physicians 134, of whom there were 3 over 100, 15 between 90 and 100, and 116 between 80 and 90 years old at their death).

Now, though we do not accord to these statistics completeness in themselves, nor regard them as proper foundation for generalizations, we may surely draw from the above combination of ages the satisfactory result that the duration of life among physicians is by no means as limited as so many authors (*König*, *Villermé*, *Deneufville*, *Hufeland*, *Escherich*, *Zeemann*, *etc.*, *etc.*,) affirm.

On Sub-Cutaneous Injections.—The instruments used by Behier, for sub-cutaneous injections (*Bull. de Thér.*, LVII, p. 49-105), consists of a small syringe, a canula, and two trocars of different sizes. The trocar with canula is introduced in the neighborhood of the affected nerve (in neuralgia, convulsion, or paralysis), and after withdrawal of the stilet, the syringe screwed on to the canula. The piston is so arranged that every fifth or sixth quarter-turn of its screw-like rod injects one drop of liquid into the wound.

Fifty-three cases of neuralgia are reported, in which the injection of a few drops at a time of a solution of three grains of sulphate of atropia, in an ounce of water, was rapidly crowned with success; also, severe cases of various paralyses, central and peripheral, in which the injection of sulphate of strychnia, and one case of lead colic, in which the injection of chloride of morphium into the neighboring areolar tissue, had curative effects. No injurious consequcnces of any kind occurred.

ON THE TREATMENT OF OVARIAN DROPSY.—By an article by Simon Thomas (*Archiv. für Holländische Beiträge zur Natur und Heilkunde*, B. I., H. 2, '59), our attention has been directed to the following treatment of ovarian cysts, as quite easy of execution, dangerless, and successful in its results. It consists in puncture and incision through the wall of the vagina—the opening made being kept open until the cyst becomes obliterated. This procedure was originally devised by Kiwisch, but modified by the author, inasmuch as he incises the puncture with the bistoury, only just sufficient to enable its being found again by the touch, and then enlarges it with a "lithotome caché," to an inch in length, always in the direction toward the uterus. Instead of introducing a canula, daily lukewarm injections are made, with the view of avoiding local inflammations, and washing out the cyst and vagina. The after treatment, in order to remove any reäccumulated liquid, consists simply in the introduction of a male catheter of large size, which, when necessary, may be left *in situ* a considerable time without fear of inflammation. When the contents of the cyst can no longer be evacuated by the catheter, a tube—"a double current"—may be used, with which the cyst can easily be washed out; and when, finally, the liquid injected, at one end does no longer flow back from the other, a short *cul-de-sac*, or blind channel, is all that has remained. This either soon closes, or exists for a time as a harmless fistula requiring no further attention.—*Cincinnati Lancet and Observer*.

PRESERVATION OF BODIES FOR ANATOMICAL PURPOSES.—Professor Budge has found that bodies may be admirably preserved for a long period of time, whether for anatomical purposes, or for courses of operative surgery, by injecting into the carotid a preservative fluid composed of pyroligneous acid and sulphate of zinc, of each from eight to twelve drachms to seven pounds of water. Bodies thus injected have kept during eight weeks of intense summer heat, without giving rise to any putrefactive smell, the muscles retaining their red color, and though a little softened, admitting of good dissection. The injection does not prevent the subsequent injection of colored matters; and the knives used in dissection scarcely suffer at all.—*Virchow's Archiv.*

ON THE DEPORTMENT OF ALCOHOL IN THE ORGANISM. By DUROY, L. LALLEMAND, and PERRIN.—The conclusions to which the authors come, are:

1. Alcohol is no article of food.
2. It is neither destroyed nor changed.
3. It is concentrated as such in the liver and in the brain. Those results explain the influence which alcohol exerts on the functions of the liver, kidneys, and brain. —*Compt. rend. T.* xlix, 578, 579.

ON A CASE OF HYSTERIA SIMULATING IN THE MOST PERFECT DEGREE NATURAL LABOR. *By Dr. Richard Hodges.*—The author was engaged to attend a woman said to be in the fifth month of pregnancy. Four months afterwards he was sent for, the patient being stated to be in labor. The pains were found to be severe, and like those of the last stage of parturition. On examination, however, a tumor was found to present, which turned out to be the bladder, distended and prolapsed. There was no pregnancy.—*Maryland and Virginia Medical Journal.*

NEW ORLEANS

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CLINICAL REPORT OF CASES

Observed at the Charity Hospital—Session of 1859–60.

By Austin Flint, M. D., Prof. of Clinical Medicine and Medical Pathology, N. O. School of Medicine.

Empyema and Operation for Paracentesis Thoracis, Paracentesis in Chronic Pleurisy and Pneumo-hydrothorax.

Case I.—*Empyema.*—John Schrimp, aged 23, German. admitted Dec. 13, 1859. This patient was admitted in the evening and not seen by me until the following morning. He suffered greatly from dyspnœa during the night. and was unable to lie down. At the time of my visit the respirations were very frequent and labored. The countenance of the patient expressed extreme anxiety and distress. The lips were deeply cyanosed. The pulse was very frequent and feeble. Slight exertion occasioned so great increase of the dyspnœa that the patient seemed about to die by apnœa. The patient stated that his illness had been of only fifteen days duration.

On examination of the chest, the left side was every where dilated and nearly motionless, the respiratory movements of the right side being exaggerated. The left side was universally flat on percussion. Feeble respiratory murmur was heard at the summit, behind, on the left side, and extended downward over the whole interscapular space. Elsewhere on that side there was no respiratory sound. On the right side the respiratory murmur was vesicular and exaggerated. The apex beat of the heart was felt on the right side below and to the right of the nipple. There was no cardiac friction sound. The intercostal depressions on the left side were abolished: they were distinct on the right side.

It was evident that the life of the patient could only be saved by the operation of paracentesis, but as he appeared to be nearly moribund, I hesitated somewhat to puncture the chest, lest he should die during the operation of withdrawing the liquid. I concluded, however, to resort to it without delay. A small trocar was introduced just below the lower angle of the scapula, and the canula attached to a flexible tube connected with a double suction pump, adapted to this purpose, as proposed originally by Dr. Wyman, of Cambridge, and employed, within the last few years, in a large number of cases reported by Dr. Bowditch, of Boston.* Three quarts of purulent liquid were withdrawn from the chest without difficulty. The operation caused no pain. The removal of the liquid occasioned no inconvenience except from slight cough. The canula was removed when the patient began to complain. The patient at once expressed great relief of the dyspnœa, and his condition was evidently improved. On examination of the liquid microscopically, the field was found to be crowded with pus corpuscles. After the operation the heart was found to have moved a couple of inches to the left, but still beating to the right of the sternum. The respiratory murmur at the summit of the left side was more developed, but was still very feeble.

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* Vide Am. Jour of Med. Sciences, April, 1852. Instruments designed for this purpose, and also to serve as a stomach pump, and for enemata, are manufactured by Tiemann, of New York.

A few hours after the operation the skin became hot, and the pulse developed, beating with considerable force —120 per minute. The patient was able to lie down on the affected side. He took nourishment and milk punch. Half a grain of the sulphate of morphia was given at night. He passed a comfortable night.

On the following morning his aspect was improved, and he reported much better. The skin was cool. The pulse was 130 and feeble ; the respirations 56. He took nutriment with relish. The lips were still livid, and the hands deeply congested.

Physical examination showed the left side to be still filled with liquid. Flatness on percussion on this side was universal, with absence of respiratory sound, save a feeble, low, indistinct murmur, behind, in the interscapular space. The heart's beat was on the right of the sternum.

The treatment directed was the *haustus quiniæ* of the hospital, with milk punch, nutritious diet, and at night the sulphate of morphia.

At evening of the 21st I removed, in the same way, as on the 19th, two quarts of pus. When this quantity had been withdrawn it ceased to flow, as I supposed at the time, from obstruction of the canule, but, as I afterward concluded, because there was little matter remaining above the level of the puncture. In the morning, prior to the operation, the respirations were 56, and the pulse 130. After the operation the respirations fell to 40, and the pulse to 120. On the following morning the pulse was 110 and the respirations were 40. He had passed a comfortable night.

On examination of the chest on the 22d, I found vesiculo-tympanitic resonance at the summit of the left side, extending as low as the nipple, with weak, vesicular murmur and feeble vocal resonance. The heart's impulse was nowhere felt, but the sounds of the heart were loudest over the lower part of the sternum to the left of the median line. No cardiac nor pleural friction sound.

The treatment was continued.

Dec. 23. The pulse was 116 and the respirations 36. He had slight cough and very small expectoration. He reported very comfortable.

January 2d, 1860. The liquid had accumulated so that it was deemed best to puncture the chest again. Thirty-six ounces of pus were withdrawn by means of the syringe, as before. The respirations were 40, and the pulse 128. The treatment continued to be milk punch, with nutritious diet, and the syrup of morphia, *pro re nata*.

Jan. 12. Since the preceding date the patient had been able to be up and dressed and to walk about the ward. The liquid had again accumulated so as to nearly fill the left side of the chest, and push the heart to the right of the sternum. A larger sized trocar was on this date introduced into the chest, behind, below the angle of the scapula, but no pus escaped. Thinking that possibly I had punctured the lung, I withdrew the canula, but I was afterward satisfied that the instrument came into contact with thick lymph or false membrane, and carried it forward without penetrating it. The patient complained of some pain, but of no other inconvenience, and the day following he was up and dressed as usual.

Jan. 16. I punctured the chest again, introducing the large sized trocar in the seventh intercostal space, about two inches to the left of a line passing vertically through the nipple. Forty-eight ounces of pus were removed. Some trouble was experienced in consequence of the canula becoming frequently obstructed. The canula was left in the chest. Pus continued to escape from it in abundance, but escaping into compresses, it could not be measured. Air passed into and from the chest freely, with the acts of respiration, giving rise to an amphoric sound when the tube was open, which ceased when the tube was closed. Metallic tinkling and echo were also observed.

Jan. 18. The tube was removed, the opening into the chest enlarged with the scalpel by my colleague, Professor Choppin, and a tent of lint introduced. It was determined to make a permanent fistula in consequence of the repeated re-accumulation of pus, and the difficulty in removing it by means of the suction pump at the last operation.

Jan. 23. On removing the tent twenty-four ounces of pus escaped. It has become very fœtid since the permanent opening was made into the chest.

Feb. 4th. The opening into the chest is maintained by the daily introduction of a tent of lint, the aperture being allowed to remain open for some time for the escape of pus. When it remains open the discharge is considerable, and the pus is constantly escaping. The quantity of the discharge cannot be determined, but it is much less than it was a week ago. It is quite fœtid.

The patient is daily up, dressed and about the ward. He has some œdema of the feet.

Feb. 15. Another opening was made by Professor

Choppin, at the lower part of the chest. A small quantity of fœtid pus escaped through this new opening.

Feb. 22. The quantity of discharge from the two openings was small, and the patient appeared to be rapidly improving. The heart sounds had their maximum between the left nipple and the sternum. There was dullness on percussion over the whole of the left side, and the respiratory sound was feeble, but not bronchial in character. The first opening was made in the seventh intercostal space about two inches without the nipple; the second opening was two inches lower, and about three inches to the left of the spine. The left side was much contracted, and the respiratory movements notably less than on the right side.

March 28th. The patient had progressively improved. His aspect was better. He reported feeling quite well. The œdema of the feet had diminished. The cough was only occasional, and without expectoration. Pus continued to be discharged at both orifices in the chest; but the quantity had greatly diminished. It was now small, and the fœtor was less. He was up and out of doors all day. His appetite and digestion were good.

The treatment all along consisted mainly of alcoholic stimulants and good diet, with the syrup of morphia occasionally. Of late the citrate of iron and quinia had been prescribed.

On the 29th my hospital service terminated, and the condition of the patient, subsequently, has not been ascertained.

Remarks.—The patient in this case was rescued from death by the operation of paracentesis. The embarrassment of the circulation and respiration was such that the case must have terminated fatally in a short time had the operation not been performed. The suffering and danger were due, in a measure, to the rapidity with which the chest had become distended with pus.

The withdrawal of the liquid by means of a small canula attached to a double suction pump, has these important advantages:

(*a.*) The operation is a trivial one. The pain caused by the puncture is slight. Dr. Bowditch claims that it is a *medical* rather than a *surgical* operation, in this respect holding the same place as venesection. If the small trocar were to penetrate the lung it would do no harm. This has occurred under Dr. Bowditch's observation, and no unpleasant results followed. It is therefore to be preferred, without reference to its other advantages, if the practitioner be doubtful as to the diagnosis; but this doubt can arise but seldom if the practitioner be tolerably conversant with physical exploration, for the signs of liquid in the chest are generally well marked. The trivial character of the operation is such that it may be repeated as often as may be required. After the first operation the patient has little or no dread of it.

(*b.*) The introduction of air into the cavity of the pleura is prevented. The injury produced by the contact of air with the inflamed pleural surface, has, doubtless, been much exaggerated. Perhaps no harm whatever arises from this source. But air in the chest occupies space and is an obstacle to the free expansion of the lung. A greater evil is, it leads to chemical decomposition of the purulent matter in the pleural cavity, giving rise to fœtor, and rendering the liquid a source of irritation to the inflamed membrane.

(*c.*) The liquid can be withdrawn as slowly as may be deemed advisable, and the quantity withdrawn at a single operation can be easily regulated. If the compressed lung do not expand readily to fill the space left by the removal of the liquid, the patient suffers pain, the chest becomes contracted in proportion to the non-expansion, and perhaps the inflammation is liable to be renewed or increased by the sudden rupture of pleuritic attachments which may have been formed. In performing this operation, I have adopted a rule to stop when the removal of the liquid occasions distress. This rule probably precludes any risk of injury from the removal of too large a quantity at any single operation.

This case, being one of empyema, the propriety of an operation for paracentesis does not admit of question. Whenever the chest on one side is filled with purulent liquid, the prospect of its being carried away by absorption is too slight to be considered. If not removed by an operation, and the life of the patient continue, perforation of the chest will be likely to take place, and the pus escaping through the aperture causes a fluctuating tumor which increases in size, and if not opened by the scalpel, at length opens by ulceration. Several instances of this kind have fallen under my observation. If the lung be free from disease, a cure under these circumstances may be looked for. Occasionally perforation of the lung takes place, and the pus is discharged through the bronchial tubes by expectoration. The spontaneous evacuation of the chest in these modes shows that in performing paracentesis in cases of empyema we imitate the curative processes of nature. It is the purulent character of the liquid which renders the propriety of the operation in empyema unquestionable; but how is it to be determined before the operation that the liquid is purulent? This can only be determined positively by withdrawing a sufficient quantity for examination, and it is important, therefore, whenever it is desirable to settle the question, to puncture the chest with a small exploring trocar, with reference to the diagnosis.

The operation of paracentesis, performed with the trocar and syringe, proved to be not sufficient to effect a cure in this case. The pus, after each operation, again accumulated, and, at length, difficulty was experienced from the thickness of the liquid and obstruction of the canula by portions of lymph. This mode of performing the operation in empyema will rarely suffice in consequence of the difficulty of absorption and the constant formation of pus. After withdrawing, by successive operations, from twelve to fifteen pounds of pus, it was resolved to make a permanent and free opening into the chest, in order that the pus might be discharged as fast as formed. Subsequently, a counter-opening was made at the bottom of the chest to prevent a depot of pus below the level of the first opening. It has lately been proposed by a writer in the *London Lancet*, whose name I do not recollect (and I am unable at the time of writing this article to refer to the Journal), to make two openings into the chest in cases of empyema, and to resort to the plan of "drainage" by introducing through the two openings a perforated caoutchouc tube. The first opening having been made as low as it is deemed advisable to puncture without risk of wounding the abdominal organs, a bent probe introduced into this opening, comes to the bottom of the pleural sac, and then made to press forward against the walls of the chest, will indicate the point where the second opening is to be made. The writer referred to, reports two or three cases in which this plan of treatment proved successful.

Injections into the pleural sac have been deemed beneficial. These may consist of simple water, with the view of cleansing the sac, or of a medicated liquid in order to correct the fœtor of the discharge and modify the inflamed surfaces. A weak solution of iodine has been used for the latter purpose by Dr. Aran, of Paris, and Prof. Brainard, of this country. I cannot speak of their utility from my own observation, but it is quite reasonable to expect from them beneficial results.

The prognosis in the case now reported, at the time when my service at the hospital ended, was favorable. The patient was improving in appearance and strength, and the discharge from the chest had much diminished and was progressively diminishing. The symptoms and physical signs rendered it probable that no pulmonary disease existed—a point having an obvious bearing on the prospect of recovery.

Case II.—*Chronic Pleurisy. Atrophy of the Heart. Autopsy.*—This case came under my observation in the wards of my friend and colleague, Prof. Brickell, Jan. 1, 1860. The patient was a female extremely pallid, feeble and emaciated. She had suffered for some time from diarrhœa. The left side of the chest was filled with liquid, the heart being removed to the right of the sternum. The respirations were but little accelerated, and she did not suffer greatly from dyspnœa. The pulse was so weak and small as to be scarcely perceptible. I proposed, with the consent of Prof. Brickell, to withdraw the liquid from the chest, but the patient was at first disinclined to the operation. She was so greatly reduced that I did not expect much from the operation, but the favorable effect upon the functions of the body generally produced by removing the mechanical obstacle to respiration, is sometimes marked, as shown by some of the cases reported by Dr. Bowditch. At all events, I could see no objections to the operation even under the unpromising circumstances of the case. In the course of a few days she requested that the operation should be performed; and, puncturing the chest with the small sized trocar in the infra-axillary region, I drew off, by means of the suction pump, fifty-six ounces of a clear, serous liquid. The canula was removed as soon as she complained of a painful, pulling sensation. After the operation the heart-sounds were loudest on the left side of the sternum. The day following, the patient reported more comfortable, but there was no material change in the symptoms.

Several days afterward I again punctured the chest and removed about two quarts of serum. The patient felt relief after the operation. There was, however, no permanent benefit, and death took place a few days after the last operation.

The lungs, heart and liver were reserved for my inspection. The right lung was healthy. The left lung was condensed from pressure—carnified and coated with lymph. On inflation, by means of a pair of bellows, it was readily expanded. There was no tubercle.

The heart was remarkably small and flabby. The walls of the left ventricle were estimated to be not over one-fourth of an inch in thickness. The cavities were not diminished in size in proportion to the attenuation of the walls. **The organ weighed four and a-half*

*** As an instance of atrophy, this is a rare specimen. It is almost *unique*. The condition of the heart may serve to explain the great feebleness of the pulse.**

ounces. The valves were sound and the cavities empty. No recent nor old pericarditis.

The liver was greatly enlarged, and presented a yellow aspect, the vessels being slightly visible.

Remarks.—This case is not reported as a successful instance of the operation of paracentesis. It is rather an illustration of the fact that under the most unfavorable circumstances there is no objection to resorting to the operation. It procured for the patient temporary relief, and perhaps prolonged life for a short period. With the exception of a case of pneumo-thorax, which will be reported in this article, the operation was performed, during the past winter, in this and the preceding case only. I shall, therefore, in connection with the present case, offer a few remarks on the propriety of removing the liquid effusion by means of the small trocar and suction pump in cases of ordinary chronic pleurisy.

In the form of pleurisy known as empyema, paracentesis is called for because there is not much ground to expect that the pus will be absorbed. This reason does not hold good to nearly the same extent in ordinary pleurisy. Effused serum may be absorbed, and often is absorbed with rapidity. (Certain therapeutical measures, diuretics, hydragogue cathartics and blisters, undoubtedly promote absorption.) As I have shown by the analysis of a series of cases several years ago, the disease generally ends in recovery without resort to paracentesis, the complete removal of the liquid usually requiring several weeks, and often many months.

The question, then, arises: Is it judicious to resort to paracentesis in ordinary pleurisy? There can be no doubt of its propriety, when, from the accumulation of liquid, life is threatened. But it seems to me the question may be answered affirmatively, with reference, not alone to these, but to nearly all cases of the disease. In the first place, the innocuousness of the operation is sufficiently proved by clinical experience. It is not only a trivial operation, as regards pain and immediate danger of unpleasant results, but it leads to no remote evils; hence, it is open to no serious objections. But it has certain positive recommendations; let us mention some of these.

It effects directly, speedily, and certainly, the main object of the treatment in chronic pleurisy, viz: the removal of the effused liquid. Remedies, on the other hand, effect this object indirectly, slowly, and are not always reliable.

It accomplishes the object of treatment with little or no disturbance of the system, and without reducing the strength of the patient. Remedies, on the contrary, give rise to more or less disorder, and reduce the patient's strength.

It preserves the lung from the effects of long continued compression, and the expansion is, therefore, more complete when the liquid is removed. For this reason there will be likely to occur less contraction of the affected side than when the liquid is slowly carried away by absorption.

These recommendations render paracentesis judicious as a rule, in cases of chronic pleurisy, exclusive of those in which absorption cannot be effected by the usual therapeutical measures, and those in which the quantity of liquid or its rapid accumulation occasions great distress and endangers life.

In connection with this subject I would caution the practitioner against trusting to the respiratory sound heard on auscultation in determining the situation of the compressed lung, the sound is often transmitted for a considerable distance below the lung, conducted, probably, by the thoracic walls. It is sometimes diffused over the chest even when filled with liquid. Vocal resonance is a more reliable sign of the presence of lung beneath the part auscultated. This sign is not propagated beyond the limits of lung. Since. however. vocal resonance is not always present over lung, either in health or disease, absence of resonance is not proof against the presence of lung. Assuming the diagnosis of chronic pleurisy to be correct, there is slight danger of perforating the lung at any point within the limits of the lower third of the chest. and, as already stated, perforation of the lung has been shown to be an accident leading to no unpleasant results.

CASE III. — *Pneumo-hydrothorax Paracentesis.*—This case was observed in the wards of my friend and colleague, Prof. Peniston.

The patient entered the hospital with pneumo-hydrothorax of the left side from perforation of lung occurring in the progress of phthisis. The affected side was greatly dilated—nearly motionless—the intercostal spaces pushed out to a level with the ribs. The whole side was notably tympanitic on percussion. No respiratory sound was heard save a feeble amphoric note, and occasionally slight metallic tinkling. The percussion sound was apparent. The heart's impulse was felt on the right of the sternum. The dyspnœa becoming urgent, I proposed to Professor Peniston to puncture the chest. Although the tympanitic resonance extended over the entire side, I presumed there existed considerable liquid effusion, for it is usually so in these cases. It is well known that the resonance from air contained in the pleural sac is propagated below the level of liquid, and that the situation of dullness on percussion is not a guide to the amount of liquid, as it is in cases of simple pleurisy. However, if liquid were not removed, it was thought that the escape of air from the chest might afford, at least, temporary relief. Professor Peniston coinciding in the propriety of the operation, the small trochar was introduced just below the lower angle of the scapula. Inodorous air escaped through the canula, with a noise like that of air escaping from an india rubber cushion. No liquid escaped. The syringe was attached to the canula but no liquid was removed. The side was at once diminished in size, and the heart moved under the sternum. The patient was greatly relieved. For several days he was nearly free from dyspnœa. Gradually the side became again dilated with air, and it was evident that the case would soon terminate fatally. Under these circumstances he was removed from the hospital in order to die among his friends.

Remarks.—I report this as the only case, in addition to those which have preceded, in which paracentesis was performed during the last session ; and also as illustrating the propriety of the operation in cases of pneumothorax, when the accumulation of air is so great as to occasion distressing dyspnœa. It is true that in this affection no curative efficacy is to be expected from the operation. A cure from any treatment is not to be looked for. But the relief which it may afford, even if it be of short duration, is enough to compensate an hundred fold for the slight pain which the operation occasions.

Gramercy Park House, New York, April 28, 1860.

CHLOROFORM AS A REMEDY IN THE TREATMENT OF CONGESTIVE CHILLS.

By JAMES J. ROOKER, M. D., of Castleton, Marion County, Indiana.

My attention was called to an article in the April number of this journal (for 1860), by Dr. Keator, of Cheneyville, La., on the use of chloroform as a remedy in the treatment of congestive chills. The Dr. reports a case showing its good effects, and thinks it saved the life of his patient. No doubt it did. He calls on the profession to try its further use in the treatment of this dreadful disease. I shall have to claim priority over the Dr. in the use of this remedy. I have been in the habit of using chloroform in the cold stage of congestive chills, and also ordinary intermittents, for the past two years, and have never found anything that would bring on reaction more speedily.* The following case, which I transcribe from my case book (one of many) will show its effect. On the 3d of July, 1859, I was called in haste to see Mrs. D. The messenger informed me that she was laboring under her third "sinking chill." On my arrival I found my patient pulseless at the wrist; feet and legs cold; constant nausea and vomiting; had had two attacks of syncope; in short, I supposed my patient would never react. Sinapisms were applied to the stomach and epigastric region, and the extremities rubbed with liq. ammoniæ. Hot baths could not be used, owing to syncope coming on immediately on attempting to raise her up.

While resident physician to the Commercial Hospital of Cincinnati, I had often used and had seen used, chloroform in obstinate vomiting. I resolved on using it in this case. She was immediately put on five drop doses in sweetened water, to be repeated every fifteen minutes. After taking the second dose she was much better; pulse returning at the wrist; nauseau and vomiting entirely stopped. In one hour from this time re-action was fully established; the fever soon passed off, and after the free use of quinine she had no return of the chills. I will also remark in this connection that she was at full term of pregnancy, and was delivered of a healthy female child in three days from this time (the 6th).

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* Inasmuch as Dr. Keator first made public his observations, his claim to priority is indisputable. Such is the rule, we believe, all over the world.—Eds.

Remarks.—As I before said I have beeen in the habit of using this remedy for the past two years. The first case was a boy who was laboring under his second chill (October 6, 1858). He had obstinate vomiting; the whole array of ordinary remedies was brought to bear in the case, but to no purpose. Chloroform was substituted, and in a comparatively short time re-action was fully established. Since this, many of the most prominent physicians of the vicinity have been in the habit of using it; and they all assert the happiest results. It appears to fulfill the following indications: 1st—It allays nausea and vomiting. 2d—It allays the pain in the stomach. 3d—It equalizes the circulation. 4th—The reaction is never excessive after its use. I have used chloroform in the hot stages of intermittents, and with the happiest results. It appears to allay nervous excitement, and, by so doing, quiets the heart's action. I have also used it the past winter in the treatment of pneumonia, in from five to ten drop doses every two hours. It allays the cough and all nervous excitement, and appears to cool down the fever.

Like Dr. Keator, I hope other physicians will fully test the remedy.

MIASMATIC HÆMATURIA, ETC.

By M. MARSH, M. D., of Port Hudson, La.

To the Editors of the Medical News and Hospital Gazette.
Gentlemen—In the March number of the *American Medical Monthly*, of New York, some comments are made on a communication of mine, previously published in your journal, on the subject of miasmatic hæmaturia, in which the editor makes the following remarks:

"We cannot conclude our notice of the paper of Dr. Marsh without referring to an idea that we consider erroneous. He says, 'when I read in the journals of the day of the successful treatment of pneumonia and other inflammatory diseases with quinine, I feel confident the writers are mistaken in their diagnosis; that they are treating a true and genuine intermittent disguised in all the habiliments of idiopathic inflammation.'

"We have treated quite a number of cases of pneumonia with quinine, opium and ipecac, and the 'journals of the day' contain the record of such experience. It is easy to assert that our diagnosis is an error—and we shall attempt no self defence on this point; but when he says, we 'are treating true and genuine intermittents, disguised, etc.,' we enter a demurer; for an intermittent or remittent fever was never known to originate in the present range of our practice, and where we have found quinine, qualified as above, so serviceable in pneumonia."

The *Monthly* thinks my opinion in reference to the use of quinine, in inflammatory disease, erroneous, and enters a very prompt demurrer to the "idea" that those who represent through the "journals of the day" the successful treatment of pneumonia, etc., with quinine, are only treating disguised intermittents, and cites as a proof of my error the successful use of that article, combined with the opium and ipecacuanha in several cases of pneumonia, under his own treatment, in a range of practice, where an "intermittent or remittent fever never originated." Now, entering a "demurer," I believe, does not decide a case, but merely postpones it for subsequent consideration, to determine whether it shall be sustained. In discussing this subject I shall attempt to establish the truth of my opinion, and show from experience, argument and authority, that intermittents and remittents of miasmatic origin are the only diseases promptly relieved by quinine, and that its use, as a special remedy in the treatment of inflammation, is not indicated, and is useless, if not positively injurious. The above "idea" is not merely the "baseless fabric of a vision," to vanish into thin air, at the first breath of disapprobation, but the representation of a fact, based on true physiological and pathological principles, and sustained by the precepts and practice of a large majority of medical writers.

I do not doubt, that many cases of pneumonia and other inflammatory diseases have recovered in regions where "intermittent and remittent fever never originated," where quinine, in combination with other remedies had been used in their treatment. Indeed, I can bear testimony to such results. But I was always of the opinion, in witnessing such experiments, that it generally retarded, and never expedited a cure. But the use of quinine in violation of its acknowledged physiological action on the human system in an unlimited number of such cases, and with like results would not entitle it to a place in the therapeutics of pneumonia. It would barely prove that it might be used without serious injury or producing fatal results; but there would be no certainty of its having done any good. It could only be thus commended as an empirical remedy.

In no case of uncomplicated pneumonia have I seen it do any good, but in many serious injury. I admit there are *conditions* of the system in the last stages of all inflammatory diseases where tonics are indicated, and very often quinine is preferable, as it not only acts as a tonic and stomachic, but restores the nervous system to its healthful action, thereby assisting the natural vital energy in removing every vestige of primary inflammation.

The foregoing opinions have been made up, and conclusions arrived at, after long, careful, and critical observations, both in my own practice and that of others, fully matured by an experience of fifteen years in different latitudes of the United States. My clinical experience I also think based upon, and sustained by, the physiological effects of quinine on man in a state of health and disease. Pereira says, it is a tonic, stomachic, and improves the quality of the blood, augments the cohesion of the organic mass, and the vital energy of the sensible system, and by some mysterious power cures disease of regular periodical returns. And in some conditions of the system accompanied by local irritation, it acts as an irritant or stimulant, producing excitement of the vascular system, manifested by increased frequency and fullness of the pulse, and augmented respiration, furred tongue, and other symptoms of a febrile state, with increased plasticity or inflammatory condition of the blood.

Now, what is there in its physiological action that would warrant the scientific physician in commending it as an appropriate remedy in pneumonia or any other simple inflammatory action? In "miasmatic hæmaturia," "miasmatic pneumonia," "miasmatic dysentery," or any other cognate disease, it stands forth preëminently, both physiologically and practically, as the first remedy, and the most potent that could be used; and after the malarious complication is thus subdued, other remedies, specially and appropriately applicable in the treatment of inflammation, may be used in concluding the treatment. But in pneumonia, free from all regularly periodical fluctuations, it is contraindicated in its first stages, and only admissable as a remedy to sustain the system in the last, thereby assisting nature in removing solidifications and other lesions caused by the ravages of the disease.

To be sure the "journals of the day" record the recovery of numerous cases of pneumonia, treated partly with quinine from their commencement. And it is but a few years since that eminent physicians and writers recommended the lancet as a very appropriate and efficient remedy in the treatment of intermittent fever, and cited cases as evidence of its success. Even Dr. McIntosh bled in the cold stage, and recorded recoveries after such treatment in his very popular work on the Theory and Practice of Medicine. There may be inflammatory complications of intermittent fever that would require blood-letting, but what practitioner on either side of the Atlantic would now class phlebotomy amongst the appropriate remedies for intermittents? And yet its physiological action, as applied to this disease, is quite as rational and scientific as quinine in pneumonia.

Professor Austin Flint, in the May number, 1859, of the *Hospital Gazette*, reports fifteen cases of pneumonia, of one lobe of the lung, treated by him at the Charity

Hospital, with quinine, opium, alcoholic stimulants, and nutritious diet. All except one recovered. Ten were complicated with delirium tremens, and others had suffered recently from attacks of intermittent fever. The general remedies usually resorted to were not used at all. And this he explains by referring to the condition of the patients, the stage of the disease, and its complications, when received into the hospital. Quinine, he says, was not prescribed with special reference to pneumonia, but in order to forestall the development of intermittent fever as a complication, and alcoholic stimulants were used, because indicated in persons addicted to their use, and with others as necessary in proportion as it becomes an important indication to support the powers of the system.

After summing up the treatment of the foregoing cases, Dr. Flint makes the following remark: "A series of cases of sporadic, uncomplicated pneumonia, therefore, ending favorably, under a certain plan of treatment, does not afford adequate evidence that the success was due to the treatment." And in another part of the same paper he says: "The propriety of blood-letting, however, is rarely a question in hospital cases of pneumonia. In the great majority of instances, when patients are admitted into a hospital, the disease has advanced to a second stage; one or more lobes are solidified, and, under the circumstances, the abstraction of blood will, in general, only tend to retard resolution."

The foregoing frank and candid admissions of a gentleman of Dr. Flint's high standing and long experience should command the careful attention of every country practitioner, especially the younger portion, and should admonish them not to follow too willingly the routine of hospital practice, and warn them not to adopt and yield too implicitly to such formulary and plans of treatment. Nothing could be a more falacious guide. Intemperance in all things, an impure city atmosphere, irregularities in the habits of the class who generally avail themselves of hospital privileges, all combine to weaken the vital powers, and consequently require modifications of treatment not at all suited to the country. In the cases of pneumonia reported by Dr. Flint, from their limited extent and complications, it would do to follow the "injunction of Chomel," which he so strongly commends, viz: "*Not to treat diseases, but treat patients affected with disease.*" But with the temperate and robust inhabitant of the country, in pneumonia of one or more lobes, the disease itself would have to be directly attacked with one or all of the following remedies—local blood-letting, calomel, veratrum viride, antimony, ipecacuanha, and the various modes of counter irritation, before *quinine, brandy and beef*, could be safely used in *treating the patient.*

This subject might be pursued in the thorough and minute investigation of miasmatic disease, in all its protean forms and multifarious complications, with inflammatory action, and we should be forced to the conclusion that, in its treatment, quinine is a safe, prompt and certain remedy, and in the treatment of uncomplicated, idiopathic inflammation, if not absolutely injurious, there is no unquestionable evidence of benefit or prompt relief. And in my opinion the physician who flatters himself he can thus subdue inflammatory action is acting on a mere fancy based upon a theory wholly chimerical.

THE LIQUOR AMNII.

A LECTURE DELIVERED BEFORE THE CLASS OF THE NEW ORLEANS SCHOOL OF MEDICINE.

By D. Warren Brickell, M. D., Professor of Obstetrics.

Gentlemen—Within the amniotic membrane, which immediately surrounds the child, is a fluid called, in obstetric language, the *liquor amnii*—in ordinary lying-in phraseology, "the waters." This fluid is found at a very early stage in the development of the ovum; indeed, it may be said to be ever coëxistent with the membrane called the amnion, and which you have seen to be very soon a part of the new being.

This fluid varies in quantity with the stages of gestation, being, in proportion to the size and weight of the fœtus, much more abundant in the early than in the late stages. In speaking of its functions, I shall revert to this variation. As a rule, it presents a pale straw color, but in the exceptions to this rule, which are not uncommon, we find it assuming a variety of hues, from the deepest straw color to a positively muddy appearance, and I have seen it, on several occasions, looking more like dirty dishwater than anything else to which I could compare it. Sometimes I have seen it so positively clear, as not to leave the slightest stain on the napkins or linen saturated with it.

The rule is, that it emits an undecided, mawkish odor—an odor strictly *sui generis*, and which has been properly called by the old women, "lying-in smell"—, but I have occasionally observed that it is strictly inodorous, and then, again, I have found it so offensive as to be almost insupportable; and here, if you will permit me to digress for a moment, I wish to say that, although offensive liquor amnii is usually regarded as evidence of death of the fœtus, I have more than once witnessed exceptions to the rule.

Usually this fluid presents a viscid characteristic. I have never seen it totally devoid of viscidity, and I have seen it, occasionally, almost as consistent as olive oil. I think that, as a rule, the viscidity is but slight.

Analysis of the amniotic fluid shows that it is mainly composed of water (say 98 parts in 100), with traces of soda, lime, and albumen. Cazeaux tells us that this is the result of the analysis of Vauquelin. Nægele also tells us, that, according to chemical analyses, its composition varies at different terms of pregnancy, and in different individuals; and that it contains water, albumen, chloride of soda, minute quantities of the phosphates, sulphates, and carbonates of soda, and of lime. He also says that, at a certain time (*certaine époque*), some of the urine of the fœtus is mixed with it.

It would thus appear to be closely analogous to the serum of the blood; indeed, we find some of our recent authors, in this country and in Europe (as Miller, of Louisville, and Tyler Smith, of London), speaking of it as a serous fluid. For my own part, I think the analysis of the fluid has not been conducted with sufficient rigor. For instance, as there is good reason to believe that, late in pregnancy, when the degree of organic development has reached a state of almost completeness, the urine of the child is often passed into the amniotic cavity, of course analysis may fail to reveal only the constituents of pure amniotic fluid. To arrive at correct conclusions, the analysis should be made far prior to such a stage of development, and many comparative analyses should be made. This will be a tedious and difficult task for him who undertakes it, but it is the only process through which reliable results can be procured.

As to the source of the liquor amnii, there have been many theories advanced, but at the present day it seems to be conceded that the amniotic membrane itself pours it forth, just as does the lining membrane of the abdomen, or that of the pleural cavity ; the difference being that of degree only. In a state of health, these two membranes exude only sufficient fluid to keep their surfaces moist and smooth—at the same time being capable of pouring it forth in immense quantities ; whereas, the amnion must all the time keep up a supply sufficient to surround the fœtus. The idea of the fluid emanating from the child proper, through the medium of the skin or kidneys, is not to be admitted, as it exists in large quantity, and in far greater proportion, when the fœtus is yet very minute. Cazeaux tells us that Riolan found four ounces in an ovum containing a fœtus of the size of an ant. Yet, the proposition advanced by Burdach, and supported by Cazeaux and others, that this fluid emanates from the mother, cannot be correct, inasmuch as the amnion, which furnishes the fluid, is really but a part and parcel of the fœtus. In the early development of the new being, we find the amnion taking its origin from the fœtus, and growing around it—in other words, the fœtus supplies its own investing membrane. And when, at the close of gestation, we subject this membrane to close examination, we find that it really is but a continuation of the dermoid tissue of the abdomen of the fœtus. So that only to the same extent that the mother furnishes the material for the development of the child itself, can we say that she furnishes the material from which this fluid is manufactured. The mother, through a process of endosmosis, furnishes the child with the material from which it manufactures its own blood, and thence all its various tissues; and amongst other products we find this one—the liquor amnii. So that, in reality, this fluid is a direct product of the fœtus—not an excretion, but a secretion, and one differing, probably, in composition, and most certainly in function, from every other.

There are those who regard the cavity of the amnion as a sort of receptacle for the excretions of the child. Thus, we find Cazeaux adducing authority to prove that the evacuation of the bladder into the amniotic sac "is necessary to the maintenance of fœtal life"—the authority being that of Billaud, G. W. King, and others, who report instances of enormously distended, and even ruptured, bladder, as the result of imperforate urethra. Most probably when this part of the subject is more thoroughly elaborated by numerous and carefully conducted analyses of the liquor amnii, it will be found that these rare instances are but exceptions to a general law. For my own part, I am disposed to believe that the wisdom of Nature will rather be found in her keeping these excretory functions in abeyance until just at the time of labor, or even after the birth of the child. I cannot believe that she would vitiate the fluid in which the child lies with an excrementitial product like urine. Indeed, in selecting the materials from the mother's blood necessary for the development of the fœtus, her wisdom would seem to consist in passing into the blood of that child, as nearly as possible, only that which is absolutely required for the development of the new being. We all know very well what the effect of the continued application of urine to the skin, in extra-uterine life, will be, and there is no good reason why the same evils should not result to the fœtus, which is said to float in this excrementitious product, even in a diluted state. Probably I shall be told that the unctuous matter with which the fœtus is covered, protects it from these deleterious effects. If so, I would reply: 1st. That there is no reason to believe this unctuous secretion is any other than that which belongs to the skin in extra-uterine life; and, 2d, that I have repeatedly seen children born with no such material on them.

But the most interesting part of this subject is that which relates to the *function* of the liquor amnii. For your information, as well as my own, I have carefully searched the works of a number of authors, in which list will be found the names of Miller, Cazeaux, Tyler Smith, Ramsbotham, Rigby, Tucker, Mauriceau, Capuron, Maygrier, Maunsell, Stein, Dewees, Denman, Dionis, Chailly-Honoré, Puzos, Mad. Le Boursier de Coudray, Murphy, Deleurye, Peu, Gooch, Dugés, Saccombe, Baudelocque, Mad. Boivin, Levret, Gardien, and Churchill.

I now propose to pass in review the various theories held by these authors, who will be considered as responsible a list as can be found.

1st. Does the liquor amnii nourish the fœtus?

In support of this theory we have Puzos, Chailly-Honoré, Rigby, Tucker, Dugés, Churchill and Levret. It is sufficient to say that these authors all believe that the fluid nourishes the fœtus at some time during pregnancy, either early or late, or during the entire term. Some advocate the theory of absorption of the fluid through the medium of the skin, others the direct prehension of the fluid through the medium of the mouth. At the present day, the idea of this fluid answering such a purpose is having fewer and fewer advocates. For my part, I consider it a libel on Nature to attribute any such function to it. In the first place, it has not the constituents of a truly nutritious fluid, except in very minute proportion. In the second, the very early fœtus is thoroughly nourished by the contents of the umbilical vesicle, and as soon as this is consumed, we find it thrown in endosmotic connection with the mother by means of the allantois, and afterwards of the placenta and cord. That the fœtus absorbs the nutritious elements of this fluid through its skin, is not physiologically correct, as the amnion which secretes the fluid is, as we have shown, a part of the fœtus itself, and under this theory, the new being would be actually living on itself. That the fœtus drinks in the fluid through its mouth, is equally fallacious, as the fluid exists in proportionately greater quantity before the mouth is formed, and children floating in due quantity of the fluid have been delivered at full term and found to have no passage to the stomach.

2d. Does the fluid assist or facilitate the distension of the uterine walls during gestation?

In support of the idea that the gravid womb is enlarged by dilatation or distension, and that the liquor amnii exerts the dilating or distending power, we have Rigby, Maygrier, Capuron, Stein, Dewees, Chailly-Honoré, Puzos, Tucker, Peu, Saccombe, Baudelocque, Boivin, Tyler Smith, and Cazeaux; yet I am sure that you will agree with me, that this is but another libel on Nature. In the first place, it is now generally conceded that the uterine walls are as thick at full term as they are when pregnancy begins. This fact, and the necessity for it, I have before pointed out. It is thus shown that evolution of the uterine tissue progresses with the growth of the child, and under the same physiological law. If the uterus were distended or dilated to the size necessary to contain the mature fœtus, it must necessarily exhibit a degree of attenuation commensurate with the size attained. This is a self-evident proposition. In the next place, the gravid womb, in the really normal state, is never absolutely *full*—on the stretch—, as is clearly seen in the natural sense of elasticity, which is imparted to the hand under palpation. Again, when the womb is thus put to the stretch, it amounts to a positive condition of disease, under the title of dropsy of the amnion ; and this condition is always attended with greater or less distress to the woman, together with a rebellious condition of the uterine muscular tissue. Lastly, it seems to me that we very much underrate the resources of Nature when we imagine that she would pursue so indirect a route for the accomplishment of so important an end. She has but to establish an immutable vital law for the end, and it is only interfered with by that enemy of all like laws, disease. Let her have made the matter dependent on a mere physical law, however, and it would be constantly interfered with by all physical laws brought to bear, as well as by disease.

3d. Does the liquor amnii protect the uterus from violence of the fœtus ?

In support of this idea, viz : that the fluid prevents the fœtus from throwing itself against the uterus, and thus inflicting injury and suffering on the woman, we have the authority of Mauriceau, Stein, Baudelocque, Boivin, Levret, Gardien, Chailly-Honoré, Puzos, and LeBoursier De Coudray. I cannot, however, admit that such a function belongs to the fluid. In the first place it is altogether unreasonable to infer that the fœtus can inflict any injury on the woman, nature not having endowed it with sufficient strength to injure ; and although we shall occasionally find women complaining of some degree of suffering consequent on the fœtal motions, there is no doubt at all that in the vast majority of cases no pain whatever is experienced. Women only complain of the strange and annoying sensation of having a moving body within them. In the next place six out of nine of the authorities I have quoted, assert that a function of the liquor amnii is to permit free motions of the child; and these six are supported by nearly every book we can take up. If it be true, that this latter function belongs to the fluid, surely it is contradictory in the fullest sense of the term to say that the same fluid is placed in the womb to impair the motions of the child.

4th. Does the liquor amnii prevent the agglutination of the members of the fœtus? In favor of this doctrine the authority of Maygrier, Stein, Boivin, Gardien, Chailly-Honoré and Cazeaux can be cited; yet I cannot teach you that such is a function of the fluid. I have had the amplest opportunity of examining the fœtus *in utero* in all its stages of development, and after the limbs are developed the normal position of the fœtus is that in which they are carefully folded down on the body, so that they are in actual contact in many points. Yet how very very rare is it that the fœtal limbs are found adherent! I have quoted Cazeaux in this connection. He confines the doctrine to the early stages, however, while the other authors mentioned speak in general terms.

5th. Does the liquor amnii form a tepid bath, and thus facilitate the circulation of the fœtus?

I anticipate that your intelligence will be shocked by such a proposition: yet this idea is supported by such men as Maygrier and Stein. I mention this to prove to you, however, the fallacy of exercising a blind faith in authority. We must think for ourselves, and we must have the boldness to combat error, or we necessarily retrograde.

6th. Is one of the functions of the liquor amnii the prevention of adhesion between the membranes and the fœtus?

Capuron and Chailly-Honoré say yes. But I cannot teach you that they are right. The membrane which touches the fœtus (the amnion) is, as I have had occasion to demonstrate, but a part of the fœtus, and it is a smooth serous membrane. Mere contact could never induce adhesion of this membrane to the fœtus: there must pre-exist that condition of absolute disease, called inflammation, in order that such union could take place. Moreover, when we look at the matter in a more practical light, we are bound to admit there are a vast number of cases in which, in the late stages of pregnancy, the liquor amnii is so scanty that the child is constantly impinging steadily against the uterus; yet no adhesion takes place. The fact is, this supposed function of the liquor amnii is altogether hypothetical.

7th. Does the liquor amnii lubricate the soft parts of the woman in labor?

Here is a proposition supported by Rigby, Maygrier, Capuron, Mauriceau, Chailly-Honoré, Le Boursier de Coudray, Deleurye, Peu, Dugés, Ramsbotham, and Cazeaux. Yet I must dissent. In the first place, the liquor amnii, as you will see by reference to its analysis, has no lubricating properties: in the next place its discharge is sudden and quickly accomplished; and, lastly, any careful observer will readily ascertain, that in protracted labors, with preternatural dryness of the vaginal canal, the passage of this fluid is followed by only a temporary moistening of the parts. In all normal cases Nature pours out from the myriads of mucous follicles, as well as from some special glands, the tenacious mucus adapted to her purposes; but let this supply be denied, and all the liquor amnii in the best supplied womb will fail to compensate.

I could enumerate other fallacious theories in detail, such as Denman's idea of the fluid being "a soft bed" for the fœtus; the idea of Stein and Peu that the water lightens the mother herself or the burthen within her; or that of Ramsbotham and Churchill, that the fluid preserves the temperature of the child: but the discussion would be unprofitable, as surely not one of you would subscribe to such vagaries.

8th. Is the liquor amnii intended to allow free motion of the fœtus.

In the affirmative we have Maunsell, Maygrier, Mauriceau, Denman, Stein, Dionis, Chailly-Honoré, Puzos, Tucker, Jacquemier, Peu, Saccombe, Baudelocque, Gardien, Ramsbotham, Cazeau and Miller. For myself, I am inclined to believe that this is one of the functions of the fluid, though I do not urge it on you. As soon as the muscular system of the fœtus becomes at all distinctly developed, we find that motion, evident to the woman, and to the applied hand of the accoucheur, is established—the degree of motion varying, of course, in different cases. Reasoning on the necessity for motion to preserve the muscular developement in extra uterine life, we assume that intra-uterine motion is, perhaps, essential to the proper developement of the muscular system previous to birth. Occassionally, however, we find that a woman will almost pass through the entire term of pregnancy without experiencing any sensation of fœtal movement, and yet her child will appear well developed. Such are the cases on which dissenters to this theory base their arguments. I have, myself, seen a case, wherein a multiparous woman was almost deranged, because she had a tumor eight months old in her abdomen, which had been growing regularly, but which she could not believe was a pregnant womb, because she had never felt any motions of the child. Auscultation revealed the fœtal heart sounds distinctly, and I assured her that she was pregnant, but the child did not move, and my declaration did not cheer her. I returned to see her next morning, and her face was illuminated with smiles. Shortly after my departure, the evening before, the child began to kick really violently, and its motion had been so constant all night that she slept but little. I delivered her about four weeks thereafter, and she assured me that during that time she was sure not half an hour had elapsed without distinct fœtal motion. She had really been seriously annoyed by it. Why this child had lain so still up to the completion of the eighth month, I have never been able to determine. The patient has always declared that he was asleep, and that I awaked him by rudely pushing the womb from side to side when making my diagnosis of pregnancy.

9th. Does the liquor amnii secure the fœtus from external violence?

In the affirmative we have Rigby, Maunsell, Maygrier, Capuron, Mauriceau, Denman, Stein, Dewees, Chailly-Honoré, Gooch, Jacquemier, Peu, Dugés, Saccombe, Baudelocque, Gardien, Cazeaux, Churchill, and Miller. Here, again, I agree with the authors named. We have but to reflect that the fœtus, a solid body, is lying in the liquor amnii, a fluid, and that the specific gravity of the two is so nearly the same that the gentle operation of ballottement (as I have shown you) will cause the fœtus to rise from the inferior towards the superior part of the womb, and we see at once the violence from without will be almost wholly spent on the fluid which surrounds the fœtus, and which is first in contact with all parts of the organ save the inferior, against which it very gently gravitates. The fluid is evidently intended to afford this protection throughout gestation, but it is more palpably necessary in the early stages, when the fœtus is more delicate, and, therefore, more susceptible of injury, and hence the greater proportionate quantity at this time.

10th. Does the liquor amnii protect the fœtus from the uterus?

That it does we have the authority of Boivin, Levret, Ramsbotham, Dionis, Chailly-Honoré, Gooch, Tucker, Jacquemier, and Cazeaux. Ramsbotham and Tucker particularize—the former saying that the fluid defends the "young embryo" from the uterus, and the latter saying that the fluid protects the child from pressure in labor, while the soft parts are being prepared for its exit. That this is one of the functions of the liquor amnii, in all stages of gestation, and in labor, there can be no reasonable doubt; but it is a function altogether secondary to one I shall now name, and which should stand preëminent in the estimation of all obstetricians.

11th. Does the liquor amnii protect the cord and placenta from pressure during gestation and labor, and thus preserve intact the circulation of the child?

Strange to say, gentlemen, of all the authors I have hitherto named, only Boivin, Puzos, Tucker, Cazeaux, and Ramsbotham proclaim the protection of the cord to be one of the functions of this fluid, and of these, only Ramsbotham says one word about its protecting the placenta from pressure. You have seen that all sorts of absurd theories are held by the long list of authors named, and yet when we reach the consideration of that which would appear to be the most reasonable idea of all, few are found to support it at all, and none with that earnestness which its importance clearly demands. In a summary manner these few authors allude to the matter, simply asserting that one of its (the fluid's) "real uses" is "to protect the vessels of the funis and placenta in the *latter* months from a degree of compression which would have impeded the flow of blood through them." Let me ask your careful attention to this important subject, as you will surely find it of great interest as applied to both gestation and labor. While I am willing to admit that compression of the cord, and consequent interruption of the circulation, either in gestation or in labor, may sometimes occur, and hence that protection of this cord is one of the functions of the fluid ; still, I believe compression of the placenta to be the primary function in this connection, and compression of the cord the secondary, or, if you please, the exceptional function. 1st. When we look at the anatomy of the cord, we find that it is composed for very effective resistance against pressure, especially when that pressure is between two yielding bodies like the fœtus and the uterine walls. 2d. In the practical teachings of the books we find that as long as the cord does not come down in advance of the head of the child, no prediction of danger from interruption of the circulation is urged. When, however, the cord is thus prolapsed, danger is said to be, and is, imminent, as then the cord is caught between two hard bodies, the head and pelvis, and stoppage of the blood current is the result.

I am willing to admit that the cord may be compressed dangerously, even without prolapse, but I urge that fatal compression of the placenta between the uterus and the fœtus is the much more probable result of loss of the liquor amnii, either in gestation or labor. Any one who will study the extreme delicacy of the placental vessels, as compared with those of the cord, who will then reflect how much more readily the current of blood can be interrupted therein, and who will then remember that oxygenation and decarbonization of the fœtal blood must take place in that placenta only; any one who will do this much, must admit that when the amniotic fluid is gone, and the uterus contracted down on the child—whether it be in gestation or at the regular time of labor—all danger arises from interruption of the circulation in the placental vessels. This is a point we shall dwell on, gentlemen, when we reach the consideration of the subject of the management of labor. That Nature was truly wise in placing the amniotic fluid between the delicate structure of the placenta and the fœtus, no man can doubt. The uterus to which that placenta is applied is a muscle possessed of contractility and of irritability. As long as the fluid remains in utero its contractions are harmless; but evacuate that fluid, and, under the joint laws of irritability and contractility inherent in the muscle, expulsive efforts ensue, and in proportion to the delay in delivery, as well as the degree of development of the ovum, danger to the fœtus is established. Why high authority like Ramsbotham shonld confine the function to the "latter months," you will, like me, be at a loss to conceive. Again, I tell you, carefully consider this matter of placental compression, and by the time we reach the subject of the management of labor you will, I am sure, be willing to acknowledge the soundness of the principles I shall then lay down, as well as the propriety of the mode of practice I shall indicate.

12th. Does the liquor amnii assist dilatation of the os uteri in labor?

In the affirmative, we have Chailly-Honoré, Puzos, Gooch, Murphy, Tucker, Deleurye, Jacquemier, Saccombe, Baudelocque, Boivin, Levret, Gardien, Ramsbotham, Mauriceau, Rigby, Maygrier,. Capuron, Denman, Stein, Churchill, and Cazeaux. There is greater unanimity amongst authors on his point than any other, and I fully agree that this is one of the functions prescribed by Nature. When we reach the subject of labor, I shall endeavor to make this point clear to your minds, and, therefore, do not dwell on it here.

13th. Does the liquor amnii favor the presentation of the head of the child?

Here, again, gentlemen, we are led to wonder at the omissions of authors. Of all the list I have so frequently named, Boivin and Cazeaux are the only ones who claim this as a function of the liquor amnii. Notwithstanding you will find most text books explaining the rule of cephalic presentation of the child on the sound principle of gravitation—the head of the child being the most weighty portion—yet they fail to record the fact, that to insure this presentation must be one of the important functions of the fluid. How, let me ask of you, could the head gravitate towards the inferior extremity of the uterus, if there were no fluid, and the uterine muscle were grasping the fœtus at all points?

14th. Does the liquor amnii favor the development of the fœtus?

I must say that I think this another of the important functions of the fluid; yet, of all the authors named, I am only supported by Cazeaux. Floating gently in this secure medium, the fœtus is not only free from external and from uterine violence, but, as a necessary sequence, its development must be facilitated. Evacuate the liquor amnii, and even insure that premature labor does not ensue, and surely the uterine resistance encountered must not only tend to retard its growth, but must tend to produce frequent distortions or deformities.

I have thus placed before you all the different functions attributed to the liquor amnii by a responsible array of authority. I could have added to this list of names from my library, but I should not have given any valuable extension to the subject under consideration. I propose, at last, and in as few words as possible, to present for your consideration another function which I think belongs to the fluid, and which is in the highest degree important. In all my reading I have not seen the idea clearly advanced, though I have not read every obstetric work extant, and, consequently, do not assert originality in the matter. One thing is certain ; in the list of text books thrown into your hands, and on which the vast majority of you rely for obstetric information, nothing is said concerning it, and, therefore, I deem it my duty to urge it on you.

I assert that an important function of the liquor amnii is to counteract the specific gravity of the fœtus, and thus prevent disagreeable physical results *to the woman* in the later months of pregnancy, when the weight of the child becomes considerable. At full term the well-developed fœtus weighs from six and a half to eight pounds, and from the seventh to the ninth month of pregnancy, the weight varies between four and a half to five pounds and these first named weights. Now, for several months in pregnancy, and especially after the neck of the uterus is pretty freely expanded, the head of the child is gravitating against the brim of the pelvis—the force of this gravitation being greater in the erect or sitting postures of the woman than in the recumbent. I find, by actual experiment, that if a five-pound weight is placed on the back of my hand, and the palmar surface of the hand is then applied to a table—thus establishing counterpressure—soon pain is experienced, and it is not very long before that pain becomes insufferable—the degree of endurance, of course, varying in different persons, according to the degree of muscular development, etc.; and I am sure that long continuance of the pressure would cause death of the tissues immediately under the weight. I also find that, even if the counterpressure be removed, the direct pressure will produce the same results—the time only varying. I also find that, even at full term, when the fœtus is heaviest, if there be a free supply of liquor amnii in the womb, and the head of the child has not entered the brim of the pelvis, a moderate impulse imparted to the head by the finger passed *per vaginam*, will cause it to rise away from the finger; and then, if we keep the finger applied to the os, we shall soon find the head gently settling down again. In other words, the operation of ballottement, performed late in pregnancy, proves clearly that the specific gravities of the amniotic fluid and fœtus vary so little, that a very slight shock is required to make the fœtus rise towards the fundus uteri. This fact is known to all careful observers, but it is not properly interpreted. As we have seen, it is claimed as a function of the fluid, that it preserves the fœtus from external shocks. True, but only half the truth. The fact we have adduced also shows that Nature has the preservation of the woman's tissues in view. If there was no water in the womb, the weight of four and a half to eight pounds would be pressing on the womb tissue (inferiorly), with the counterpressure of the pelvis below, and this, as we have shown, could not be borne. But nature has so ordained it, that the fluid counteracts the specific gravity of the child so fully, that the most gentle gravitation of the cephalic extremity only is allowed ; any shock throws the fœtus from the point on which it gently impinges, and both mother and child are thus preserved from danger.

A short recapitulation, and I close my lecture. I have adduced in detail fifteen different functions of the liquor amnii, besides alluding to others.

Of these, but eight are now presented to you as admissible, and of these, one is at least doubtful to my mind, viz : that the fluid is intended to allow free motion to the fœtus. That Nature, in her infinite wisdom, has endowed this fluid with seven important functions, I have no doubt ; yet, do not take this for granted because I tell you so. On the contrary, study the subject carefully for yourselves, and you will be then capable of accepting and rejecting. I cannot, as Miller does, curtly remark, that "no other use is attributed to it (the fluid) but to protect the fœtus from external injuries, and to provide space and a suitable medium for its muscular movements." It is this summary manner of treating important subjects in our text books, gentlemen, that frequently leads the young obstetrician into trouble in practice. I contend, now and ever, that only minute, thorough investigation of all points can make us what the community has a right to expect us to be, and he who wearies of this mode of study must fall far short of the proper standard.

SPECIAL SELECTIONS.

LECTURES ON EXPERIMENTAL PATHALOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the COLLEGE OF FRANCE, during the Winter Session, 1859-60.

By M. CLAUDE-BERNARD, Member of the French Institute; Professor of General Physiology at the Faculty of Sciences.

LECTURE VIII.—EXPERIMENTAL PATHOLOGY. ON DISEASES ARISING FROM THE VITIATED DEVELOPMENT OF CELLS.

Summary: The Parallel between the Diseases of Man, and those of Animals, continued—The External Manifestation of Vital Actions almost invariably due to Nervous Agency—Diseases in which the Nervous System does not appear to play a Part—The Powers of Development in some degree independent of Nervous Influence—Three Orders of Vital Phenomena within the Living Frame: 1. Nervous, or Mechanical; Catalytic, or Chemical; Histological, or due to the Powers of Development—Evolution of the Living Being, in the first instance, Independent of the Nervous System—Origin of Cells: generally supposed to arise from a given starting point—Sometimes, however, of spontaneous growth—Powers of Development in the Adult Being—Their Intensity greater in the Lower Order of Living Beings—Morbid Manifestations of this peculiar Vital Force—Heteromorphous Tissue—Virchow's Researches on Cellular Pathology—Some Diseases the result of Imperfect Development: others of a positive deviation from the normal type—Modifications in Blastem, superinducing Cellular Disease—Local Affections not Real Disorders when viewed in a proper Light—Imperfect Nutrition, its immediate results—Absence of Glycogenous Matter in the Animal's Tissues—Consequences of a siugular state of Things always ending in Death.

GENTLEMEN—We shall continue to-day the comparative study of the diseases which arise in man, and those which affect the lower animals; and in this lecture we shall bring to a close this important subject.

The nervous system, as we have sufficiently proved, is the agent through which the vital powers almost invariably exert their influence; but the nerves themselves, in the manifestation of this activity, are inseparably connected with muscular tissue: motion is, in fact, the only symptom which reveals the presence of nervous power. We, therefore, invariably discover, in all the phenomena which belong to this class, three distinct stations—a centre from which the impulsion starts, nerves which transmit, and muscles which obey it.

Our last lecture was entirely devoted to the study of certain affections in which nervous influence does not appear to interfere—we allude to septic, virulent, and contagious diseases; but even in such cases, the nervous system almost inevitably plays a part in the production of the internal disorder, which results from the introduction of similar poisons into the economy. Let us adduce an instance of this. We shall select an example from the phenomena of embryology. The evolution of the ovum takes place according to well known rules, which have been established by direct observation; all its successive stages have been attentively watched in various animals, and it has been discovered that vessels and nerves which at the outset do not exist, make their first appearance at a given moment. Now, if certain poisons are introduced into the ovum during the first period of its devolopment, the process of evolution is not interfered with, provided that heat, moisture, and the other external conditions, remain precisely the same as before. But, as soon as vessels and nerves have been formed, the ovum is immediately poisoned, and its vital activity at once extinguished. Here, then, we find certain phenomena connected with development, which appear in some measure to depend on nervous influence; but it must be acknowledged, that in the greater number of cases the reverse takes place, and that the powers which preside over the historical evolution of tissue are totally distinct from all other biological motors, and enjoy complete independence in their action We are, therefore, compelled to admit the existence of three principal classes of phenomena within the living body, which, although closely connected through reciprocal influence, exist independently of each other.

Firstly—Nervous phenomena, embracing all the mechanical actions of life;

Secondly—Catalytical phenomena, embracing the various kinds of fermentation;

Thirdly—Histological phenomena, embracing the entire results of cellular evolution, or the process of development.

The two first classes of physiological agents, viewed in connection with the origin of disease, have been examined in our previous lectures; it now remains for us to investigate the letter—viz: the morbid phenomena superinduced by disordered powers of evolution.

It cannot be denied that during the first period of embryonic life, the development of tissue is in no way connected with nervous influence. The nerves have not yet been called into existence, and are only created at a later period, through the agency of that mysterious force which presides over the evolutions of the being so lately called into life. The vascular system being for similar motives, set aside, we discover, in the very first stage of existence, nothing but the primitive cell, and the medium in which it grows to maturity. But micrographists do not entirely agree in the view they adopt of the first step which commences that long series of successive evolutions, by which an entirely new living being is ultimately produced. That within an entirely amorphous medium, a living cell might spontaneously be produced, was the opinion of Schwann; but, in our own days, these views appear to have been completely laid aside; modern investigators are convinced that all living organizations are invariably derived from one primitive cell, which, by its divisions, and subdivisions, gives birth to all the rest; now, this primordial element originates, of course, with the animal's parents.

We met, however, with cases in which it seems altogether impossible to deny that one or several primitive cells have been spontaneously generated within a medium which previously contained no vestige whatever of histological elements. The serum of blood, for instance, when introduced into a vessel hermetically closed, is found to contain, after a few days have elapsed, a large number of yeast-cells, which the grape-sugar dissolved in this liquid has probably produced; and yet, when carefully examined under the microscope, immediately after coagulation had taken place, it did not contain a single nucleus or cell. Similar results frequently occur for notice; and, in more cases than one, the mere process of subdivision and multiplication will not be found sufficient to account for cellular development.

In the adult the phenomena of evolution continue to exist, and although far less extensive than during fœtal life, they are almost equal in importance. Thus, in certain animals, organs are found, which momentarily disappear, and are subsequently reproduced. Hunter observed that the sparrow's testicle, reduced during winter to the smallest possible bulk, promptly returns to its primitive size during the first days of spring. Mr. Stanlius has collected all the cases of similar reproduction which have been noticed in the animal series; thus in hibernating mammals, for instance, certain parts of the body are completely atrophied during winter, their functions being suspended for a time; some nervous ganglia are even found to disappear, more especially those connected with the genital organs; but as soon as the physiological activity of these parts is awakened, they are called a second time into being. Hunter also discovered that in the pigeon a peculiar organ, no vestige of which exists in the animal's previous state, is produced during the latter part of incubation; the mucous membrane of the gizzard becomes tumefied, grows vascular, and secretes a new substance, which serves for the nourishment of the young birds when newly hatched. In the humane species (as in all mammals besides), the rapid development of the mammary glands, towards the period of lactation, offers another instance bearing on the same point.

But must we consider these as the only phenomena of a simular nature which take place within the system? Do not mucous surfaces continually secrete new layers of epithelial cells? and is not the epidermis incessantly renewed on the surface of the skin? Here, then, we discover evident instances of histological development going on during all the stages of life. With respect to muscular tissue, its tendency to increase in bulk under the effects of constantly renewed exertion is perfectly known; but it has been hitherto admitted that the constituent fibres of a muscle may no doubt increase individually in size, but that their number invariably remains the same. A German micrographer, Mr. Budge, has lately endeavored to prove the contrary. A frog being reduced by abstinence to a state of emaciation, a small muscle is laid bare, and the number of its elementary fibres ascertained by direct investigation under the microscope. The animal being then properly fed, and gradually restored to a state of health, the same muscle is again examined; and, according to the ingenius observer, the number of its elementary fibres is found to have considerably increased, as well as their bulk.

Let us now consider the morbid manifestations of this power, which never suspends its action within the living body; we allude, of course, to those peculiar tissues which have been styled heteromorphous—an expression utterly condemned by German micrographers; for morbid tissue is generated within the economy in strict conformity with the laws that preside over fœtal development. But, as we have previously seen, both nervous influence, and catalytical agency, give rise to a variety of diseases when deviated from their proper course; thus, also, in certain given cases, the power of histological evolution may create positive disorder in the system. An immense and uninterrupted movement takes place within the organs of which the body is composed, for the purpose of supplying new tissues, in the place of those which are no longer fit to accomplish the functions devolving upon them; let this unceasing activity be diverted from its proper channel, and the production of tubercle, cancer, and all kinds of morbid deposits, will be the immediate consequence. We find here, as usual, an evident connection between the phenomena of health and disease, between physiological activity and pathological influence. The question which lies before us must evidently be viewed in this light; and such is the principal object of Virchow's labors on cellular pathology, the leading features of which it is our purpose to make known to you. But, before entering into the study of this particular point, a few general notions on the subject cannot safely be dispensed with.

Some diseases, in the first place, result from total absence or considerable deficiency of normal evolution on a given point. The mucous coat of the intestinal tube affords us a fine example of incessant development. New layers of epithelium are continually being secreted, to line its inner surface; but a living medium, or blastem, is necessary to their production; and whenever this blastem itself happens to be altered in its essential properties—a modification which always occurs in inflammation—the epithelium disappears, and is no longer regenerated. Cholera also exhibits another instance of this; for it has been indisputably proved that, in this disease, the vessels which ramify on the internal surface of the intestines are completely laid bare. In his admirable researches on the intestinal mucous membrane, Professor Goodsir has established that, after each meal, when absorption has taken place, the epithelium which covers the villosities falls off, and is renewed during the interval which elapses before food is again introduced into the digestive apparatus—a remarkable instance of the rapidity with which the reproduction of tissue frequently takes place. But when, through some pathological agency, epithelium is no longer secreted, what results from its absence? No obstacle is henceforth opposed to serous exudation from the vessels; no protecting surface resists the introduction of various poisons into the economy; and, lastly, no regulating power of absorption any longer exists. In this manner innumerable diseases may be traced back to the suspended activity of normal evolution as their primary cause. The chronic inflammation of the trachea and bronchial tubes likewise destroys the vibratile epithelium, the utility of which is too well known to be expatiated on.

But we meet, at the same time, with other diseases, which arise, not from interrupted, but from perverted evolution. You are, of course, well aware that cells which pursue a regular course in their development comprise three distinct elements—Firstly, an envelope, or cellular paries, the physical properties of which take a prominent share in its action; secondly, liquid contents, the importance of which is principally derived from their chemical composition; and, lastly, a nucleus, in which the powers of development appear to reside. As soon as a morbid state of nutrition supervenes, the contents of the cell are liable to alteration. Whether pigment, or fatty substances, or calcarous salts are therein deposited, morbid tissues are gradually formed, and disease is introduced into the system; and, even in similar cases, no pathological entity, no abstract principle of disease, is required to explain the fact. The deviation of physiological activity is its only cause. It is therefore evident that, in their successive phases of development, heteromorphous tissues entirely resemble the normal ones, and are subject to the same natural laws. To Müller belongs the honor of having been the first to proclaim this great principle; and he may therefore be deservedly styled the creator of cellular pathology. He was the first to open that path in which Virchow now treads with so much success.

The intercellular tissue, or blastem, is the medium from which the cells derive the elements of their formation; it is, according to Virchow's picturesque expression, their territory. Now, there exist various conditions in which the blastem no longer contains the principles required for the normal development of cells: it is, for instance, indispensable that it should always contain glycose, albumen, and fat; the absence of a single one of these three substances is an insuperable barrier to cellular evolution; and we, therefore, constantly find them existing as well in the tissues of the embryo, as in those of the adult. But a variety of other conditions, essentially injurious to histological growth, may casually arise; and the existence of morbid blastems, which give birth to all tissues endowed with abnormal properties, may easily be conceived as of possible occurrence. Such are, no doubt, those very general dispositions of the economy, known under the name of diatheses, and which, when once they have firmly established their hold on a previously sound individual, are capable of being transmitted to his posterity; we must evidently consider them in the light of conditions of existence entirely new, which, in the first instance are accidentally produced (for disease must evidently begin somewhere), but which when once called into existence, exhibit a strong tendency to maintain themselves in being. Thus, when food, insufficient in quantity, or of an unwholesome kind, has ultimately reduced to a consumptive state an animal previously enjoying perfectly sound health, its offspring often inherits the morbid disposition which, in the parent, was entirely accidental; and syphilis, that well-known and fruitful source of heteromorphous productions, is similarly transmitted from parent to child.

Such pathological dispositions, or diatheses, result from causes various in their nature, but which concur in one point, viz: the disposition which opposes all modifications favorable to the patient's health. Sometimes they are the result of a profound change in the fluids of the economy; sometimes they originate in the introduction of peculiar poisons, which, after having once penetrated into the system, can in no way be expelled; if there existed, for instance, a poison which none of our organs could eliminate, it is clear that after penetrating into the torrent of the circulation, it would nowhere find an issue, and would in consequence become the origin of permanent modifications in the economy. The possibility of a similar case may be rationally conceived, by referring to the singular fact already mentioned, that iodine when once introduced into the blood, is not eliminated before a long space of time, on account of the affinity which the salivary glands exhibit for this substance ; we have, therefore, in this case an instance of a body which cannot (for a time at least) be expelled from the system ; the animal is, therefore, during that period, laid under an iodic diathesis.

Viewing the subject in an entirely physiological light, it may be contended that individuals affected with local cancers are not properly, so to speak, in a state of disease, as long as the organs affected are not altogether essential to life ; but when çancer attacks the limbs, the possibility of a surgical cure may at least be presumed, if not expected actually to take place ; and the patient is not really diseased—that is to say, life is not directly brought into danger. Thus, when cancer attacks the liver, if a disease is not too extensive, the morbid productions are separated by large tracts of sound tissue, which fulfill, as in the healthy state, their physiological duties ; bile is secreted as usual, and grape-sugar exists within the glandular tissue. But when, at a later period, the disintegration of the elements which constitute the morbid production have poisoned in some measure the whole economy, by pouring into the torrent of the circulation fluids, impregnated with the noxious principles, then, indeed, the affection becomes a general complaint, and its nature entirely changes. Cancèr is not a diathesis in itself ; but the subsequent cachetic state is evidently diathetical.

To conclude the history of these morbid evolutions, there yet remains one to be described ; and this is imperfect nutrition. It is evident at the present day that the anatomical conditions, brought so prominently forward in Bichat's celebrated work (a), are quite insufficient to explain all the various modes of dying. Experience has taught us that patients often die without offering, in the post-mortem examination, the slightest modification in the anatomical condition of their organs. In the course of our physiological experiments we often see dogs arrived at the very last stage of emaciation, although the appetite continues unimpaired till the last moment. They sink from sheer exhaustion, while the lacteals are gorged with chyle; and, when opened, their bodies offer no trace whatever of pathological alterations.

(a) "Recherches Physiologiques sur la Vie et la Mort."

The latent cause of this singular process is, that nutrition, when considered within the depths of our organs, is, in fact, nothing more than a peculiar mode of evolution. The economy produces within itself substances indispensable to life; glycogenous matter affords us an example of this: formed within the body by a special process, it plays an immense part in histological phenomena. As soon as it fails to be supplied, epithelium is no longer produced; various diseases are the immediate result; and, under similar circumstances, life is inevitably brought to a close. The physiological act called nutrition, comprehends, therefore, two distinct parts: formation of cells is the first; creation of blastems is the second; and the latter is no less indispensable to our existence that is the former; as soon as pathological influences arrest either the one or the other, death is the consequence. There exist, therefore, two distinct modes of dying: sometimes life is cut short at once by an important injury to some essential organ; sometimes, on the contrary, it gradually fails through imperfect nutrition; and this latter termination is the ordinary result of acute diseases, when they prove fatal. In certain cases, for instance, glycogenous matter is no longer produced; and after a given space of time the patient dies, although the appetite remains unimpaired till the last moment. In making the autopsy, the lacteals will be found in a state of repletion ; but when analyzed, the fluids of the economy no longer present the slightest vestige of sugar. Death then supervenes, and is the mere result of suspended activity in organs for which proper nourishment is no longer provided.

You therefore see, gentlemen, that to create laws especially intended for the use of pathology cannot in any case be justified ; and that physiology furnishes, in every possible condition of health or disease, a key to the interpretation of vital phenomena. These general notions I look upon as indispensable to the study of particular points : it now remains for us, in order to complete this general survey, to examine the all-important question, "Whether medines act on a sick patient in the same manner as on a sound individual ?" and how far the results obtained in one case are fit to be compared with those observed in the other. It is our intention to examine this subject in the next Lecture : its study is an indispensable introduction to the various investigations we are about to undertake ; for, after producing artificially—no matter how—a morbid state in an animal, we shall have recourse to the counter-proof, by seeking for therapeutical agents to effect its cure.

EDITORIAL AND MISCELLANEOUS.

The Discoverer of Anæsthesia.—We are very much surprised to learn from a recent number of a Philadelphia journal, that Dr. W. T. G. Morton, of Boston, has been endeavoring to induce the profession of Philadelphia to recognize his claims as the discoverer of the anæsthetic effects of ether, and that "his efforts have been completely successful, nearly all the respectable members signing the testimonial." And while we were reading the foregoing announcement, here comes from the widow of the real discoverer (Horace Wells, of Hartford, Conn.) a pamphlet containing a summary of the incontrovertible evidence hitherto collected in favor of the claim of Wells, as well as the damning evidence against those who would rob him of his dearest right—and one of whom wears medals around his neck which tell of the iniquity. This pamphlet also announces the fact, that the faithful widow is about to appeal to the highest medical tribunal in the land, the American Medical Association, to corroborate the claim of her dead husband. A holy cause indeed; but if the members of the profession are forestalling the action of the Association by giving testimonials in favor of Morton, on ex-parte evidence placed before them by Morton himself, hers will be a difficult task. If Morton's claims are just, he wants no testimonials from even all "the respectable members" of the profession in the civilized world. Let him go before the Association like this faithful widow, with the *evidence* of his claims—not with the "testimonials," the barren opinions of any set of men.

But we have no doubt the widow will carry with her before the Association the impenetrable armor with which she has clothed the claim of her dead husband—the masterly pamphlet of the Hon. Truman Smith, Senator from Connecticut—and the shafts of Morton, Jackson & Co., in striking it, will fall harmless at her feet. Go on, Madam! Professional pride animates the great bosom of that body of men, and they will yearn to keep the wonderful discovery blazoned on the banner of the true sons of Esculapius; but Truth and Justice will also be there, and before these great attributes of man's nature all pride and all prejudice will be dissipated as dew before the summer's sun; and then from the crucible shall you lift the humble name of your lost husband all the more brilliant for the ordeal through which it shall have passed.

MEDICAL PATENTS AND OUR NATIONAL CODE OF ETHICS.—On the cover of the Boston Medical and Surgical Journal, we notice the advertisement of "*The Uterine Elevator—Patented January* 24, 1860," and invented by John A. Wadsworth, M. D., of Providence, R. I. This advertisement contains the joint certificate of twenty-six individuals with M. D. attached to their names, thirteen of whom have their names also recorded on the list of Permanent Members of the American Medical Association.

Turning to the Code of Medical Ethics of the Association, we find under the general head—"*Of the duties of Physicians to each other, and to the Profession at large,*" and under the special head—"*Duties for the support of professional character,*" the following important clause:

"4 Equally derogatory to professional character is it, for a physician to hold a patent for any surgical instrument or medicine, etc." Also: "It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

Can the inventor of this wonderful instrument (which requires only to be *looked at*, to be pronounced the best), the gentlemen signing the certificates, or the editors of the journal advertising, put their hands on their hearts and say, we do no wrong? For shame on the whole transaction! Will the American Medical Association permit her *members* thus to violate their first great duty to her?

LIVE ALLIGATOR FROM THE HUMAN STOMACH.—From an esteemed correspondent we have received a bottle of alcohol containing a veritable alligator about six inches in length, accompanied by the following letter:

Messrs. Editors—An Indian woman complained of gastro enteric symptoms at various times for about three years. She could feel "a crawling," she said, in the bowels, which was ascribed to worms. She took various vermifuges known to the Choctaws, and finally calomel and castor oil, which caused her to void this specimen. It was voided alive and was killed by the Indians to prevent its escape, after which it was sent to me by Mrs. Leflore, of this county. It has been in my possession since, and I now send it to you. It certainly did pass from the woman, and afterwards there came away three others, which were small, but quite lively, and ran about rapidly. They were also killed, but I could not get them. From long suffering this woman finally succumbed. I saw her a month before her death, and she stated that she still had more of them, but that they did not trouble her except when she began to eat; then she found they would crawl towards her mouth as soon as she even saw the food, which caused her to think they also wanted their meals.

Mrs. Leflore promised to procure a post-mortem in this case for me, as she had great influence with the patient's friends, but her death was concealed for several days, so that I could have no chance to see the actual condition of the alimentary canal or its contents.

Yours, truly,

J. L. PLUNKETT.

CARTHAGE, Miss., April 8, 1860.

We are under great obligations for the specimen, and will give it a place in the Museum of the New Orleans School of Medicine ; but we must suggest that the evidence adduced by our friend, Dr. P., is not sufficiently authentic to be received by close inquirers after truth. Could the Doctor say that he himself saw the alligator come from the mouth of the patient, we might begin to believe.

OVARIOTOMY SUCCESSFULLY DEFENDED.—In the late number of the *London Medical Times and Gazette*, Prof. Simpson shows that ovariotomy is less fatal than herniotomy ; less fatal than the tying of the subclavian artery ; less fatal than amputation of the thigh ; less fatal than amputation of the hip joint. Under such circumstances, he contends that the operation should not be abandoned while the operations named are performed. Such would seem to be real surgical consistency.

THE AMERICAN MEDICO-CHIRURGICAL REVIEW AND THE SECESSION MOVEMENT AGAIN.—Our readers have freshly before their minds the exposé we made in our late April number of the course pursued by the editors of the above journal in relation to the avowed connection of Southern Medical Colleges with the secession of medical students at Philadelphia. We have now the pleasure of announcing, that the effect of our exposé has been to force from those editors the publication of a part, at least, of the truth of the business, so far as the New Orleans School of Medicine is concerned. In a few words, we have forced them to publish the fact to their readers, that "the faculty of the New Orleans School of Medicine have *never* had, at *any* time, *any* communication, of *any* kind whatsoever, with *any* student of medicine, attached to or seceded from *any* school in Philadelphia:" whereas, the editors had distinctly avowed the contrary. This is all we desired. One fact is worth a thousand miserable sophisms (an inexhaustible supply of which the editors certainly have on hand), and on this single fact alone are we willing to appear before the world. True, we did not expect it, but it has slipped from their pen by some strange mishap, and it points with unerring aim to the utter unsoundness of all the charges against all our Southern colleges.

The editors ask why we "*are abusing the Review.*" We are not conscious of having done so, or of ever having the slightest desire to do so. On the contrary, gentlemen, we are trying to keep you from degrading your own pages. One of the meanings of the word abuse, is "to pervert the meaning of, to misapply." Now, the object of a medical journal is to preserve the purity, and elevate the standard of our profession. You have perverted and misapplied your journal by promulgating false accusations of the meanest kind against your peers—accusations which you never have, and never can substantiate. Will you say that you have not abused your own journal?

The editors speak of having "to exclude her (the New Orleans School of Medicine) from the benefit of the exculpation which they "so gladly" extended to another. "*Exculpation*" indeed! "*Benefit!*" Would not the unsophisticated reader suppose that these editors held the whole of the medical school patronage of the South in the palms of their hands, and that all schools, save their own, lived through their special grace? When we wish to sink in public estimation, gentlemen, we will bow before you for "exculpation." As it is, our act, and that of our pupils, is our pride; and our "benefits" shall be the fruit of the sound seed we ourselves sow.

The editors commend the "dignified silence" of another, and speak of our "catering to public excitement."

> **"O wad some pow'r the giftie gie us**
> *To see oursels as others see us!"*

Had the editors of the *Review* observed "a dignified silence," *ab initio*, they would not now have been in the unenviable position in which we have reluctantly, and only in self-defence, placed them.

In the last paragraph the editors say: "All history is, to some extent, a fiction, and in attempting to write that of the stampede, we only stated what, at the time, we supposed to be true, and what has not since been successfully contradicted in any of its material points."

We freely admit that the historian who treats of events which belong to an age preceding him almost necessarily leaves his pages sullied with the lines of fiction; but he who writes to-day of that which occurred yesterday, and under his own eye (he being, himself, a party interested), if he prefers grave charges against his fellow-men, and fails to sustain them with proof positive and irresistible—such an *historian* appeals in vain to the charity of men: his "fiction" blots out the page forever, because it wantonly trifles with truth. As to our catering to public excitement; why, had the editors of the *Review* "observed a dignified silence," at least so far as unjust reflections on their fellow-men are concerned, we should never have touched them ; but they have heaped the coals upon their own heads, and cannot complain if we now tell them, that in attempting a *defence* of their position they make themselves amenable to the spirit of the language used by Macaulay in his Review of Barrère's Memoirs.

"By attempting to enshrine the Jacobin carrion, they have forced us to gibbet it, and from the height of infamy to which we have raised him we venture to predict he will not soon be taken down."

PROFESSORIAL.—Dr. Edward Warren, Editor of the *North Carolina Medical Journal*, has been appointed to fill the vacancy created in the Baltimore Medical College by the death of Dr. Fricke. Dr. W. will, no doubt, prove acceptable to all concerned.

WUTZER'S OPERATION APPROPRIATED BY THE QUACKS.—An esteemed friend sends us, just as we are going to press, some extracts from the *Yazoo Democrat*, a paper published in Yazoo City, Miss., which are neither more nor less than the advertisements of one H. A. Gliddon, "well known as a truss maker," and from Memphis, Tenn., who proposes to open an infirmary in Yazoo City for the avowed purpose of radically curing hernia by means of Wützer's method. This fellow takes the liberty of quoting a case from the reports of Dr. Ogier, of Charleston, and announces the operation as "simple and painless." He also advertises the certificate of a man said to be cured by him.

Thus it is that one of the most useful of surgical operations will be forced into disrepute, for it is neither "simple nor painless," and in the hands of such men will necessarily fail oftener than it will succeed. An accurate knowledge of the anatomy of hernia, as well as of the precise principle on which the cure is effected, is absolutely necessary, and no *truss man* has this knowledge. We sincerely hope that the intelligent medical men of Yazoo County will take the trouble to put the planters on their guard in this matter. It is a duty they owe to their patrons and to surgery. But for the interest we feel in the success of this operation, we should, of course, not notice the advertisements.

TRANSATLANTIC LIBERALITY.—The *London Medical Times and Gazette* is claiming for Prof. Simpson, of Edinburg, the credit of the exposition and simplification of the metallic suture! Who but a cool Englishman could have done this! Where is Dr. J. Marion Sims? He ought to send the roast-beef eater all the documents.

PHYSIOLOGY OF THE CIRCULATION.—We are much indebted for an extra of the *American Medical Monthly*, being a part of the "Course of Lectures delivered at the College of Physicians and Surgeons, New York, in the Fall Term of 1859: By John C. Dalton, Jr., M. D., Professor of Physiology and Microscopic Anatomy." He who reads must praise these lectures, for they are not only of absorbing interest, but they are put before the mind in a style so simple, yet forcible, that they cling to us like the most refreshing romance. We have no personal acquaintance with Prof. Dalton, but he has our highest professional admiration. We see clearly that he thinks for himself—that he is the slave of no authority—and we know good will spring from his exertions. We trust we shall be placed in possession of the complete course of his lectures.

Circular of the New Orleans School of Medicine.—We beg leave to call attention to the annual circular and catalogue of this flourishing institution, which will be found stitched with this number of our journal.

EXCERPTA.

M. Velpeau's Report on Coal-tar as a Disinfectant.—The Academy of Sciences having appointed a committee, composed of MM. Chevreul, Cloquet, and Velpeau, to consider the claims of MM. Corne and Demeaux's preparations of coal-tar and plaster as a disinfectant, an extensive series of comparative trials between it and other substances was instituted at La Charité, and M. Velpeau has recently presented to the Academy an elaborate report on the results. The general conclusions are—1. That coal-tar mixed with plaster, disinfects putrefying organic matter. 2. In its therapeutical applications it has only realized a portion of its promises. As a disinfectant in the autopsy-rooms (upon this point, even in the hottest weather, M. Velpeau speaks in the strongest terms)—in the beds of dirty patients, and wherever there are infected matters, its properties are indubitable. The same may be said for putrid and gangrenous discharges, fetid suppurations, sanious wounds, ichorous caverns, and hospital gangrene ; but, with respect to open wounds and ordinary ulcers other topical applications are preferable. 3. Employed with charpie, linen, ointments, cerates, or taken internally, it has furnished no useful result. 4. As an absorbent, especially used as a cataplasm, it acts very indifferently. It must be remembered that abnormal liquids, especially pus, are very different componds to water ; and plaster which exerts great absorbing power on the latter, may imbibe but very little pus. Still, whether in powder or cataplasms, the compound may render some service, even as an absorbent, in fetid or putrid suppurations. To secure the good effects of the coal-tar and plaster certain precautions must be taken, the neglect of which may probably explain the entire inefficacy this mixture has exhibited in the hands of some experimenters. It is fine modelling plaster, and not common plaster, which should be employed, and the coal-tar, or carburetted oils, in the proportion of from two to four per cent., triturated with it, should impart to it a greyish color, while leaving it its dry and pulverulent quality. Anatomical parts to be disinfected should be rolled in this powder, so as to bring it in contact with all parts of their surfaces. Gangrenous or putrid sores must be covered by thick layers, laid on in handfuls several times a day ; and, in the case of blood, pus, dejections, etc., enough must be put on to form a kind of paste, replacing the layer of powder by a new one when it no longer absorbs. Mixed with white oil into a thick paste, it may be applied as a cataplasm.—*London Medical Times and Gazette.*

INGUINAL HERNIA—WÜTZER'S OPERATION FOR RADICAL CURE. *Under the care of Mr. Marshall.*—W. C., aged 21, admitted on January 2, 1860. Three years ago, whilst carrying a sack of coals on his back, he noticed that a swelling appeared in the right side of the groin, which was easily reduced, and did not return for a year, when it again appeared, after slipping as he came down stairs. It was on this occasion reduced in Charing Cross Hospital. He has since worn a truss, but the hernia has occasionally been allowed to descend. A week ago, when intoxicated, the hernia was again brought down by his slipping off the curbstone. He was taken to University College Hospital, when it was reduced. It being thought a favorable case for permanent cure by Wützer's operation. Mr. Marshall on January 4, performed the operation. It was attended by very little pain, and no chloroform was required. There was some slight pain after the operation; on one occasion being rather severe, Mr. Hill injected a solution of morphia into the cellular tissues, over the course of the anterior crural nerve; the pain did not recur again. The patient progressed very well; the cylinder was removed on the 15th; the invaginated portion of the skin of the scrotum was now adherent. On the 22d the patient was discharged cured.—*London Medical Times and Gazette.*

CONCEALED ACCIDENTAL HÆMORHAGE DURING THE LATTER MONTHS OF PREGNANCY AND LABOR.—Although this class of accidents had been alluded to by various writers, it seems that few had witnessed it, for after an extended search only eight cases were found recorded—viz: by Albinus, one; Mr. Saumerez, one; Mr. Coley, one; Dr. Johnson (Dublin), two; Dr. Oldham, three (one private case, two of Guy's Hospital Charity). These were quoted nearly in full, and to them the ninth was added by the author. The details of all were analyzed, from which it appeared only two recovered, and in them the condition occurred at seven months and a half of pregnancy. The remaining seven, which died, were at full term, or in labor. The children were still-born in all, where mention was made. The symptoms were very similar in each. Severe pain was noticed in one case. If, at the period above mentioned, syncope supervene, the uterus very tense and enlarging, the outline of the fœtus indistinct, and the more especially if the liquor amnii have escaped, it may justly be concluded that this form of hæmorrhage is going on within the uterus. The reason that this accident is more appalling at this time than in the earlier months, was shown to be—1, from the more easy separation of the uterus at full term; 2. the capability of the placenta forming a larger bag, from its larger area, and the larger calibre of the blood-vessels; and 3, from the uterus being more expanded, the falciform pseudo-valves act less readily. The early recognition of this condition was urged as all-important with regard to this treatment, to which the modern plan for "accidental hæmorrhage" was applicable, should there be sufficient power; while in the cases where the patient was *in extremis* when first seen, it was held advisable that the emptying of the uterus should rather be deferred till some slight improvement appeared, at was recommended by some authors in placenta prævia, in the meanwhile supporting the system, employing firm pressure and cold on the fundus uteri, and endeavoring to excite the uterus to action by secale and galvanism, being ready on a slight rally to extract the fœtus. In the case of the author, the peritoneal coat of the uturus was rent in many places, some lines in depth, without any hæmorrhage; and references to some other cases were given of this form of ruptured uterus ; the peculiarity in the above case being, that not a drop of blood had been effused into the peritoneum. This was accounted for by an alteration in the tissue of the whole anterior wall of the uterus.

Some discussion took place as to the proper treatment to adopt in similar cases, in which Drs. Rigby, Priestly, Tanner, Barnes, Tyler Smith, and Elkington (of Birmingham) joined. Dr. Barnes and the latter gentleman related interesting cases which had occurred in their own practices, and which were very similar to that recorded by the author.—*London Medical Times and Gæzette.*

WHAT WE EAT AND DRINK.—" The leading articles that were more or less commonly adulterated ; these are, arrowroot, adulterated with potato and other starches ; bread, with potatoes, plaster of Paris, alum, and sulphate of copper ; bottled fruits and vegetables with certain salts of copper ; coffee with chicory, roasted wheat, beans, and mangold wurzel ; chicory with roasted wheat, carrots, sawdust, and Venetian red ; cocoa with arrowroot, potato-flour, sugar, chichory, and some ferruginous red earths ; Cayenne with ground rice, mustard husk, etc., colored with red lead, Venetian red, and turmeric ; gin with grains of paradise, sulphuric acid, and cayenne ; lard with potato-flour, mutton suet, alum, carbonate of soda, and caustic lime ; mustard with wheat-flour and turmeric ; marmalade with apples or turnips ; porter and stout (though sent out in a pure state from the brewers) with water, sugar, treacle, salt, alum, cocculus Indicus, grains of paradise, nux vomica, and sulphuric acid ; pickles and preserves with salts of copper ; snuff with various chromates, red lead, lime, and powdered glass ; tobacco with water, sugar, rhubarb, and treacle; vinegar with water, sugar, and sulphuric acid; jalap with powdered wood; opium with poppy capsules, wheat-flour, powdered wood, and sand; scammony with wheat-flour, chalk, resin, and sand; confectionary with plaster of Paris, and other similar ingredients, colored with various pigments of a highly poisonous nature, and acid drops, purporting to be compounded of Jargonelle pear, Ribston pippin, lemon, etc., with essential oils containing prussic acid or other dangerous ingredients. The adulteration of drugs is extensively practiced; and when we remember that the correctness of a medical prescription rests on an assumed standard of strength and purity in the drugs or compounds employed, and how frequently life itself depends upon the efficacy of the medicines prescribed, it is difficult to exaggerate the evils arising from this prevalent fraud. The adulteration of drinks deserves also special notice, because your committee cannot but conclude that the intoxication so deplorably prevalent, is in many cases less due to the natural properties of the drinks themselves, than to the admixture of narcotics or other noxious substances intended to supply the properties lost by dilution."—*Report of Committee.—London Medical Times and Gazette.*

PSORIASIS ONLY A DISEASE OF THE ROBUST.—Professor Hebra observes that a remarkable peculiarity of psoriasis is that it is well nigh exclusively an affection of very strong and robust individuals, who though the disease may last for years, do not the least suffer therefrom. He has met with it in only one single instance occurring in a subject of a dyscrasis, viz: in a man suffering from phthisis. Moreover, when individuals suffering from phthisis are the subjects of some other severe and prolonged affection which reduces their strength, the psoriasis subsides as long as this condition continues, to reappear immediately on the occurrence of convalescence and recovery of strength. The most frequent age at which it is met with is between 20 and 30; and although it may also occur in the very young and old, Hebra has never met with it below 6, or above 50 years of age. It is undoubtedly hereditary in several families.—*Wien Spitals Zeitung*, 1859, No. 14.

ON ANTHRAX: ITS PATHOLOGY AND TREATMENT.—*By Travers R. Blackley, M. D.*—Anthrax occurs generally in persons of middle or advanced age and debilitated constitution. It is very insidious in its progres and frequently obscure in its primary attack, being regarded as a simple abscess or boil, which, when it breaks, will soon get well by natural process It is caused by a sloughing of the cellular tissue under the skin, and is most frequently observed on the back or back of the neck, though the anterior surface of the body is by no means exempt, or even the extremities. What gives rise to this condition of the cellular tissue it is hard to determine; in the absence of clearer explanations it is referred to some peculiarity of "diathesis," generally a bilious one, and deserves the consideration of the pathologist, though not further investigated at this time. The slough, or dead cellular membrane, adheres with great tenacity to all its surrounding attachments, and it is perhaps owing to a want of organization that its separation from them is so very tedious a process. Be this as it may, its presence keeps up and even extends the disease. Nature trying by increasing the inflamed surface to get rid of the offending substance, the skin and slough acting and reacting on each other, and thus a disease, originally of small extent, may be gradually converted into one of immense proportions and will, owing to constitutional disturbance if left to itself, lead, in all probabilty, to a fatal termination.

It is curious and instructive to observe the efforts of Nature to relieve herself in this case, contrasted with one of phlegmonous abscess, with which the disease under consideration is at times confounded. In the latter, the matter is contained in a circumscribed sac, and pressing on its walls causes absorption of the most yielding portion, which is generally towards the skin, and pointing in this direction, opens and is discharged. In anthrax the quantity of matter is comparatively small, and is diffused through the slough to which it is only collateral, and as the latter is adherent equally throughout, there exists no more pressure in one direction than another, and therefore no single or general pointing takes place ; but in protracted cases, we generally observe several holes or openings which give exit to the small quantity of pus in their vicinity, leaving the slough still adherent, therefore in no manner tending to the removal of the disease. Thus the openings are too small to discharge the slough, and if larger, the slough is too adherent to the adjoining parts to be cast off.

Under those circumstances we can understand how the "sphacelation" of the skin over the slough might lead to a radical cure by removing one of the causes of the slough being retained in its position, and allowing Nature to cast off its subjacent attachments, and we take a step in this direction when we make the crucial incision, so properly laid down for practice. The surgeon is very generally called in at an advanced period of the disease, and finds his patient in a state of great pain and mental and physical prostration, so much so that the question may arise, "Has he stamina to carry him through the operation ?" to say nothing of the after-treatment for removing the slough, which is frequently of a very painful and protracted nature, and against which the exhausted frame may be unable to contend.

It is this period, between the operation and termination of the disease, that is most critical for the patient and anxious to the surgeon, and it is with the view of relieving both that I venture to recommend a mode of treatment which, as far as I know, has not hitherto been brought forward, and which the following case will elucidate :

Case.—About fourteen or fifteen years ago, taking a stroll not far from my residence in the country, I was requested by a poor woman to visit her husband who lived in a cottage. He was a worn-out man, about 60 years of age, very thin, and with a countenance full of pain and anxiety. On examination, I found he had an enormous anthrax covering the inferior portion of the scapula, and extending from its anterior edge to the spinous process of the vertebræ. My first impression was, that the disease was too far advanced for operation ; my second, that it was the only course which held out a hope. I had no instruments, save lancets, in my pocket ; but inquiring if there was a razor in the house, was presented with one, with this I made a full and free crucial incision through the tumor. The edges of the wound bled freely for a little, but that having subsided I ordered a large poultice to be applied, and his strength to be kept up. On the following day I found the surrounding inflammation had diminished to a great extent, but as I looked on the emaciated frame, and a countenance almost Hippocratic, I felt the poor fellow with every support could not survive the separation of the slough.

As I thus reflected, I raised an angle of the skin, stretching the slough which firmly adhered to it, and an idea sugested itself on which I instantly acted. With a forceps and scissors I nipped away the entire slough from the sound parts, going as close as possible to the latter without wounding them, and drawing the edges of the wound into contact with adhesive plaster, I applied a bandage and waited the result. The slough when removed might have filled a wineglass. I thought it would have been larger, as previous to the operation the tumor in extent was the size of a plate, but as much of its fluid contents were removed with the poultice, the size of the dead cellular mass was proportionably diminished. In a couple of days I could scarcely credit the improvement which had taken place. The edges of the wound were united through two-thirds of their extent, and in the course of a week, with the assistance of porter, wine, and animal food, a central wound, not larger than a florin, and on the high road to cicatrization, remained. Had the slough been allowed to separate spontaneously, or even with the aid of turpentine and warm dressings, I question much if such a happy result would have taken taken place, as Nature (at best with all the assistance I could have rendered her) would have required as many days to produce that condition of parts which the scissors effected in as many minutes, and at that critical stage of the disease when a day or two of suffering or relief might make all the difference between *cita mors aut victoria tæta.—Dublin Medical Press.*

CONDITION OF THE MUSCLES IN MYALGIA.—*By Dr. Inman, of the Liverpool Infirmary.*—I have long been seeking for an opportunity to ascertain the probable condition of the muscles in myalgia from excessive action, and having obtained it, I think that the profession will be interested with the result of the investigation. We will examine first the condition of the muscles in those who have died of tetanus. Externally we find them firm in texture, pale in color, and marked by purple spots. Microscopic inquiry shows that their bloodvessels have been emptied, that many of the muscular fascieuli have been ruptured, and that each of these fractures is attended with laceration of bloodvessels, and extensive extravasation of blood between and around the broken fibres. As far as my observation has gone, ecchymosis into the sheaths of muscles, or between the muscles and the skin, is not common in tetanus. In case of recovery from tetanus the muscles remain rigid and useless for a long period, but rarely, if ever, inflame and suppurate. I have known two instances in which rupture of fibre, and probably intramuscular ecchymosis, have occurred during life. Both were in gentlemen, and the occurrance took place while running for a long leap. The fracture occurred half way down the biceps cruris ; it was attended with sudden and acute pain, followed by local rigidity and tenderness for many weeks. We have, then, the broad fact before us, that excessive muscular action will produce rupture of muscular fibres and their associated bloodvessels ; and we have reason to anticipate that a similar effect may be produced by a smaller, yet still excessive, amount of such action. We call all muscular action *excessive* which is followed by stiffness, pain, soreness, cramp, or genuine inflammation. As sportsmen say that after a hare has been well "coursed," or hunted with beagles, if she escape, she is next day, and for a long time afterwards, so stiff (and sore ?) as to be unable to move, and that very frequently she evades the dogs only to die from her exertions to escape, it became a desideratum with me to secure a well-coursed hare, one in whom, had it lived, stiffness and immobility would certainly have ensued. Such an animal I have, through the kindness of a friend, recently obtained, with the assurance that none, during the season, had given the dogs a longer run. On removing the skin, the following was the appearance presented: The whole of the muscles, where there was no ecchymosis were as pale as the breast of a fowl, instead of the ordinary red brown color usually presented by hares. Excessive ecchymosis existed about the head and neck, which was due to the greyhounds' teeth; and there was some other spots about the loins, which were probably due to a similar cause. In addition to these, however, there was very extensive extravasation of blood above the shoulders, along the whole course of the longissimi dorsi, and about the upper parts of the thighs, both on the posterior and the ventral aspects. The whole of the abdominal muscles were covered, externally, with a layer of extravasated blood, and the muscles themselves were purple-black. The peritoneum and bowels were of an equally dark color, with extravasated blood. The legs and shoulders were apparently healthy, yet a close investigation showed that there were small ecchymoses in the substance of the muscles, and under the fascia. On cutting open the longissimi dorsi, they were found to be very dark in color, very soft, and so brittle in texture that the fibres readily broke during manipulation. The fibres of the white muscles were also very friable. There was no physical change noticed in the tendons and fascia, except where they were bathed with blood, bloody serum, or simple serum.

On making sections for the microscope, the greatest care was taken not to destroy the natural appearance during manipulation ; and sugar and water were employed to prevent the blood from being dissolved out. The first thing noticed was that lines of extravasated blood accompanied every muscular fibre in the abdominal muscles, and about every third fibre in the longissimi dorsi, and every tenth fibre in the crural muscles. This gave sections, of the first, an appearance similar to that of the pyramidal bodies of the kidneys. The next thing which attracted attention was that the transverse lines were very indistinct in the vast majority of the fibres in all the muscles. After a close investigation, it was seen that many of the muscular fibres were ruptured through their "sarcine," the sarcolemna remaining entire. At first, I attributed this to some accidental violence during manipulation, and made a series of observations accordingly. The question was ultimately set at rest by my finding in an abdominal muscle, a ruptured fibre with an accumulation of extravasated blood around the fractured portion. The sarcolemna being entire, no globules were seen between the divided "sarcine." I found no fibres ruptured completely across.

If the preceding account of the physical changes produced in muscles from excessive exertion be accepted, it disproves most completely the idea of Dr. Handfield Jones that the pains and other phenomena of myalgia are simply "neurolytic" and dependent on "nerve-debility ;" and that of others, which attributes them to hysteria, feminine fancy, or the desire of sympathy. It gives us a good ground for the belief that the sufferings described are *real ;* and it unequivocally points to a plan of treatment of which practice has already proved the value, viz : that the muscles should have time to rest, and thus be enabled to repair fractured fibres, and "take up" extravasated blood; it leads us to expect that in cachetic subjects, ecchymosis may pass on to inflammation, and this to abscess or disorganization; and it still farther points to the necessity there is, in all cases of myalgia, for improving muscular "tone" and increasing vascular tenacity. It demonstrates that, as a general rule, shampooing, friction, galvanism, or other means which would aggravate muscular exertion, blisters, or other counter-irritants, or leeches or local blood-letting, cannot be expected to do more good than they do in common ecchymosis.—*Brit. Med. Journal.*

POISONING BY CARBONIC ACID GAS.—*By J. B. Thomson, L. R. C. S., Resident Surgeon, General Prison, at Perth.* The following case appears to me to be unique, and bears strongly upon the important question: Whether carbonic acid gas acts merely by producing asphyxia, or whether it is a positive poison? A. S., æt. 20, states that while employed in his prison cell, picking oakum, an accidental spark lighted upon the teazed material, which blazed up immediately and filled the cell with smoke. He became stupid, made ineffectual attempts to extinguish the flame, and fell down on the cell-floor exclaiming "murder." An official states, that within a minute and a half from hearing the cry of "murder," the cell-door was thrown open, and the prisoner walked out of the cell without help. The prisoner assisted to put out the flames, which was done in a few minutes. He spoke to the officer, and explained how the fire originated. He walked about the length of 150 yards, carrying water in a pail. In about five minutes from the time of issuing from his cell, the prisoner sat down upon a stool, became sick and stupid, and fell on the floor in a state of insensibility. He was raised up and replaced on the stool, had a drink of water, and his face and hands washed; and a second time he fell on the floor, was seized with retching, foaming at the mouth, spasms, and total insensibility. The following is the description of the patient's condition from my note-book at the time: Nov. 9, 5.50, P. M. Within twenty-five minutes after the accident of the fire I saw A. S. He was lying prostrate, rolling his body from side to side, tossing about his arms, convulsed as if by tetanus; when his body was set up, he showed an utter want of muscular power. The face was pallid, eyes shut, pupils fixed and contracted. His head, when lifted up, was drooping and fell down; retching constant, vomiting of frothy saliva in large quantities; pulse full, languid, numbering 68; total insensibility. The vomitings were darkish, and contained carbonaceous matter. When raised to the upright posture he had no locomotive power, and when pinched no sensation of pain. I had him exposed freely to a current of fresh air, made him inhale amonia, and bled him from the arm to the extent of ten ounces. Cold affusion was applied to the surface of the body. The blood appeared somewhat darker than normal. The symptoms continued as described up till past midnight without amelioration; during which time he had leeches viii, applied to the temples and a purgative enema; cold applications to the head. 12 midnight: The retching and vomiting of frothy saliva, with stupor, unabated. Nov. 10, 7.20, A. M. Pulse 70, full and laboring; respiration oppressed, lays his hand on his breast as if to express his labor in breathing; respiratory murmur dull; cannot speak, cannot swallow anything; comatose. The vomiting of frothy matter has partially subsided since midnight. A blister was applied to the chest. This condition remained with some slight improvement throughout the day. The frothing at the mouth recurred for two or three hours occasionally; the stupor seemed less at times, then returned as profound as ever. Still some carbonaceous matter in the vomitings. On examining the nostrils and fauces, I found them much inflamed; at times made signs by opening his lips, but spoke none. Tried to swallow, but with evident pain and sense of chocking; and the irritability of the stomach continued such, that if anything was swallowed it was at once rejected. Nov. 11 and 12. With slow but steady amendment, all the symptoms became more favorable; cannot remember what occurred at the fire. Nov. 13. He was able to take and retain nourishment; having been previously kept up by nutritious enemata. He now speaks a word or two and sinks down into a partial stupor. Complains of great pain in the nasal passages and the fauces, which are still slightly inflamed. Nov. 14. He is now so far well as to sit up a little; much reduced in strength, and, as it appears to me, his mind, never strong, rather enfeebled. Does not remember assisting to put out fire in cell.

Some of the features of this case seem very remarkable The interval from the time of exposure to the carbonic acid gas and its effects was considerable. I have taken some pains to make out, as near as possible, the length of time that elapsed before the stupor and sickness appeared, and there must have been at least five minutes. During this interval, was the poison working its way into the system? In assisting to put out the flames he may have imbibed some more smoke, but this cannot have been of any consequence. Among the cases of poisoning from this gas, we find that the miners who worked in the burning mine belonging to the Devon Company, sometimes wrought for a length of time before they were affected; and the only test of the poison being concentrated and dangerous, was the effects produced. The air was pure enough to support light, but yet injurious to life, by its gradual and cumulative effect upon the system. In the black lung of miners I am satisfied that carbonaceous matter, in many instances, is thus *ab extra* carried into the circulation; and from its extreme solubility in the blood, there is no difficulty in believing this theory. M. Nysten found that sixty-four cubic inches of this gas may be absorbed without proving injurious. It thus appears that the effect of carbonic acid gas is not always sudden and immediate; but by repeated and cumulative doses, it may, after a longer or shorter period of exposure to its influence, be absorbed into the system, and act as a positive poison. The effects were decidedly narcotic. The symptoms of stupor, loborious circulation and respiration, with convulsion, all indicated deep narcotism. For several days after complete recovery, the patient remembered nothing of what occurred during the interval from leaving his cell until he became insensible. The excessive frothing from the mouth was the most rare and striking feature in this case, and seems to be characteristic of poisoning by various of the gases. The amount of saliva discharged was beyond anything I have seen in the same space of time from the most severe salivation.

The history of this case seems to leave no doubt that carbonic acid gas was gradually absorbed into the system, and acted as a positive poison. That gases may permeate freely through the human body cannot be doubted. We see this in cases of injury to the lungs, when emphysema occurs and inflates all the tissues, the air again passing out by the lungs and skin. It is also well known that a stream of carbonic acid gas made to play upon the membrane of a frog's foot, stagnates the capillary circulation there. Is this a chemical or a mechanical effect? Is this asphyxia proper, or is it the action of a positive poison on the blood? The latter opinion is all but proved. Frequent and fatal accidents occur from the feather-white wine (der federweisse wein), which, from the heat disengaged in the stomach, evolves carbonic acid gas in large quantities, by fermentation, and penetrating through the stomach, diaphragm, and other membranes, reaches the blood, and produces the very symptoms which occurred in the case before us, and often ends fatally. All such cases are explained more readily than by any other theory, when we assume the doctrine that carbonic acid acts as a narcotic poison.—*Edinburgh Medical Journal.*

FRENCH DOCTORS.—"It is the world, my friend," writes a Frenchman, "which makes the fortune of a doctor; most rarely do his brethren help him to it. And when we seek the motives of the world, which makes it so enamored of this or that doctor; when we ask how it is that so many *confreres* of highly superior intellect to those whom fortune caresses, we find ourselves in the face of an enigma. See the funny gallery of portraits which success spreads before us! First, there is Dr. Prudhome. Large and fat; face round and jolly, with a look of satisfaction spread over all his body; eternal black clothes, and white neck-tie; gold spectacles; thick eyebrows; grave and solemn air; uttering the most trivial facts with a loud, sententious voice. Is he learned and wise? All that is known of him is his Inaugural Thesis. Nominated President of a society in his district, he is known to have returned thanks; 'Gentlemen—This chair

. . . is the happiest day of my life.' How has this heavy, vulgar man managed to penetrate into such an excellent practice? Enigma one. Then comes Dr. Ecureil. This man runs, turns, ascends, descends, and is ever in motion. Little, thin, quick-eyed, cane in his hand, saying good-day on the run, having time neither for eating nor drinking, making twenty or thirty visits a day. How did this little piece of rapid mechanism captivate the public? Enigma two. Next I present to you Dr. Charabias. Red, short, jolly, good fellow, making a regular hash of grammar, seasoning his sentences with well-marked *auvergnat*, tapping his male clients on the stomach, and his female ones on the back: Good day, old fellow! good evening, my dear! When he started he used to write in his prescriptions, *Leaudanon de Sidenham, cinapism, etc;* but the pharmacien has somewhat reformed his education. This man tires two horses a day! Dr. Jocrisse is incomprehensible. He has an unalterable formula of questions. A proprietor, gathering cherries, falls and impales himself. Dr. Jocrisse is called, and gravely asks as follows: What age are you? Are you left-handed? Where have you pain? put your hand there. Does it often hurt you? Were your father and mother subject to this accident? To a young lady suffering from a burn, he asks: Does she suffer from hæmorrhoids? How many are there who owe their success to a positive vice.—*L'Union Med. and Med. Times.*

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NOTICE.

The Correspondents of Prof. Austin Flint will please notice that his address is changed to No. 258 Fourth Avenue, between 20th and 21st streets, New York City.

NEW ORLEANS

Medical News and Hospital Gazette.

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REPORT OF THE CASES OF PNEUMONIA

Observed at the N. O. Charity Hospital during the Session of 1859–60.

BY AUSTIN FLINT, M. D.,

Prof. of Clinical Medicine and Medical Pathology, N. O. School of Medicine.

A larger number of cases of pneumonia were received into my wards during the last, than during the preceding session. My records contain the histories of *thirty-eight* cases. This number includes all that were received, excepting a very few cases, probably not more than three or four, in which the patients were admitted in a moribund state, and not treated, nor even seen by me. The histories of the recorded cases are generally quite full, notes at the bedside having been made daily, or on every other day, either by Mr. Profilet or by myself. The daily records, when not made by me, were usually examined and verified by my own observation. I desire to report these cases with reference especially to the management, the more because, as regards fatality, they present a contrast with the series of cases which came under my observation during the session of 1858–9.* It is an important inquiry, whence the disparity in the proportion of fatal cases, between the cases observed during the last and during the preceding session? As bearing on this inquiry, I may say at once that the general principles of the treatment pursued were in both series of cases essentially the same, and it is to be presumed that the measures directed were in both alike carried into effect. With regard to the management of pneumonia, I wish to make, by way of introduction to the present report, a few remarks which might perhaps be considered in this connection as obtrusive, were it not that they are called for in order to obviate certain misapprehensions which would otherwise naturally arise in the mind of the reader.

From the uniformity with which depletory measures of treatment were avoided, and sustaining measures employed in the cases now and heretofore reported by me in this journal, it would perhaps be inferred that the reporter has adopted rules of practice which exclude the former and require the latter indiscriminately in the management of pneumonia. Such an inference would be incorrect. A fair inference is simply this: the cases which have been reported uniformly seemed to present indications for supporting, rather than depressing remedial agencies. I do not hesitate to express the opinion that the vast majority of cases in hospital practice do present these indications. But I am far from holding the opinion that depletory and other depressing measures are never indicated in cases of pneumonia. It is well known to every medical reader that within the past few years there has been much discussion concerning blood-letting in this and other inflammatory diseases. While principles and practice, as regards this remedy, which were in vogue twenty years ago, are now maintained by very few practitioners, there are some who are reserved in its use to an extent amounting nearly to a repudiation of it in all cases. Of the latter class Dr. Bennett, of Edinburg, has rendered himself, by his recent writings, the most prominent representative. For one, I am by no means prepared to say that blood-letting is never indicated in the treatment of pneumonia ; but the indications for it are very seldom presented in hospital practice, the disease in these cases rarely being in the first stage, and often existing in association with other affections, or with a general condition of the system contra-indicating this remedy, however applicable it may be to cases of a different description occurring in private practice. But even in the cases just referred to, I believe generally the useful ends attainable by blood-letting may be secured as well by other measures not producing the spoliative effects of blood-letting, viz : by saline depletants together with the nauseant and direct cardiac sedatives. This view of the subject I had presented long before the recent discussions by Dr. Bennett and others. In a discourse, printed fourteen years ago,* I advocated the doctrine that blood-letting exerted no direct control over local inflammation, but an indirect influence only by relieving actual plethora, if this condition preceded the development of inflammation, or a state of virtual plethora incident to the activity of the circulation from increased power of the heart's action ; in other words, that it is useful only in so far as it affects the intensity of the symptomatic febrile movement and obviates the reäction of this on the local affection. This doctrine I have inculcated ever since in clinical and didactic teaching, and, as based upon it, the use of other cardiac sedatives and depletion by means of saline purgatives, in lieu of blood-letting, in the great majority of cases of inflammatory affections.

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* For the report of these cases *vide* Hospital News and Gazette No. for May, 1859.

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* **Buffalo Medical Journal, 1846.**

The free use of alcoholic stimulants in conjunction with sustaining diet in certain cases of pneumonia, is not with me a recent plan of treatment. I had pursued it many years prior to late reports of Dr. Todd and others, as my records will show. For a long time I have inculcated both by precept and practice that a patient affected with pneumonia, as well as with any other inflammation, should not be permitted to die by asthenia so long as life may be maintained by supporting measures ; and that in this, not less than in any other disease, is it important always to forestall a degree of exhaustion which will add to the danger from the disease.

Of the value of opium in the treatment of pneumonia, my experience has furnished abundant evidence during the last five or six years ; and the more my experience accumulates, the more am I satisfied that the free use of this drug will come to be regarded as a very important measure in the management of certain cases of the disease.

Directing now attention to the cases to be reported, the main object, as already stated, will be to consider them in relation to the treatment pursued. How are the cases to be considered with reference to this object ? The rate of mortality is one point of view under which they are to be considered. The mere statement, however, of the proportion of deaths, to the number of cases, is not sufficient to show the result of treatment as regards life or death. The fatal cases are to be examined sufficiently to ascertain whether complications or other circumstances may not have existed which account for the unfavorable termination. Nor is the termination of a disease in recovery necessarily evidence of successful treatment. It is needless to say that a severe disease may not end fatally in spite of injudicious treatment. The bad effects of treatment may be evidenced in a series of cases in which there are no deaths, viz : by a protracted convalescence and permanently damaged health. Hence, in studying the reports of cases with a view to estimating the results of therapeutical measures, it is not enough to ascertain how many deaths occurred—and to inquire into the reasons for the fatal termination in these cases ; but the cases which recovered are to be considered with reference to the duration of the disease, the rapidity of the convalescence, and the condition of the patient when discharged. Another very important point for consideration has reference to the immediate apparent effects of remedial measures. A remedy may exert a happy influence in a marked degree, as shown by a comparison of the symptoms before and after its administration, although it may not be competent to effect a cure. The histories of fatal cases, in this point of view, may be valuable as affording evidence of signal benefit from therapeutical agencies. This is a consideration not always sufficiently appreciated.

The number of the cases of pneumonia to be reported is large. A transcript of the records in all the cases would occupy great space and prove tedious to the reader ; and yet an account of the cases individually is necessary in order to form a correct estimate of the management. How shall the histories be abridged ? Proposing to myself this question, I have adopted the following plan :

The name, occupation, age and date of admission into hospital are first stated. The duration of the disease before admission is given in the cases in which this was ascertained, together with the habits and the habitual state of the patient's health. With reference to the local affection, it is considered sufficient to say that the physical signs showed the existence of pneumonia affecting one or more lobes, and the physical condition of the affected portion of lung as regards solidification. The results of a physical examination of the chest daily, or on every other day, are recorded in full in all the histories, but as the introduction of these details would lengthen very much the report, it is assumed that the reader will be satisfied with a brief statement of the conclusions without stating the particular physical signs. Of the symptoms denoting the general condition of the patient, the *pulse* and *respirations* are selected as giving a fair representation of this condition. As a rule, the gravity of pneumonia and the progress of the disease are represented by the thermometer of the circulation, the pulse, and by the thermometer of the pulmonary system, the respirations. Important symptoms referable to the nervous system are mentioned when present, for example delirium, and other symptoms which have a special significance, such, for instance, as lividity. All other symptoms of minor importance are omitted in order to secure as much condensation of the histories as is consistent with the object of the report.

With the histories of the cases abridged in the manner just stated, they will occupy more space than can with propriety be assigned to them in a single number of the Journal. I have therefore divided the cases into two clases. The first class will embrace all the cases in which the pneumonia appeared to be uncomplicated, etc., not associated with any other disease. Cases in which other affections coëxisted, will be classed together under the head of cases of complicated pneumonia.

The present article will be limited to the cases of *uncomplicated pneumonia.* After giving a condensed account of these cases severally, I shall offer a few concluding remarks; and in a subsequent number of the Journal I shall finish the Report by considering, in like manner, the cases of *complicated pneumonia.*[*]

CASES OF UNCOMPLICATED PNEUMONIA.

CASE I.—*Inflammation of the lower lobe of the right lung—The attack preceded by Delirium Tremens—Very slow resolution of the Pneumonia.*—James Snell, Irishman, laborer, aged 27, admitted November 2d, 1859.

The patient had been discharged from the hospital only two days before his reädmission, convalescing from delirium tremens. He had slight dry cough for two days before his discharge. He was seized with a chill the night before his reädmission, which was followed by febrile movement but not by pain. The expectoration denoted pneumonia, and the physical signs showed that the lower lobe of the right lung was affected, the upper portion of this lobe being already solidified. The pulse was 104, soft and compressible; the respirations were 32.

Treatment—Opium gr. ii, three times daily.

November 4. Reported better; pulse 104; respirations 28. Treatment continued.

November 5. Reported better; pulse 112; respirations 28. The expectoration was quite offensive.

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[*] The length of the first part of the Report will preclude its insertion entire in this number. The concluding portion will appear in the No. for August.—ED.

The physical signs showed solidification of the whole lower lobe of right lung.

Treatment—The opium continued; porter six ounces three times, with essence of beef and milk for diet.

November 6. Improvement marked. Pulse 100; respirations 24. Fœtor of expectoration had ceased.

Treatment—Opium gr. i, three times and diet continued.

November 7. Physical exploration revealed dullness on percussion and the crepitant râle over the upper and anterior surface of chest on right side, denoting commencing inflammation in the upper lobe of right lung. Pulse 120; respirations 28. Skin burning hot and dry.

Treatment—Opium 2 gr. three times. Brandy in milk, 2 ounces every three hours. Sustaining diet and lemonade.

November 8. Reported better. Pulse 104; respirations 28. Skin hot. *Physical exploration revealed the vesicular murmur over the upper lobe of the right lung and absence of the crepitant râle.* Treatment continued.

November 11. Daily improvement after the preceding date.

December 30. The following note was made on this date: "This patient was discharged about ten days ago. Resolution of the solidified lung went on very slowly, but it appeared to be complete when the patient left the hospital. At the time of his discharge he was still feeble and had sat up only a week or ten days."

Remarks: The disease in this case, although uncomplicated, occurred under unfavorable circumstances, the patient having just recovered from delirium tremens. The commencement of inflammation in a new lobe consecutively to an affection of one lobe, ceased to continue and advance to the stage of solidification in this case. I have observed this in other instances. It will be noticed that the cessation of the inflammation in the second lobe occurred while the patient was taking two ounces of brandy every three hours and two grains of opium three times daily. Great slowness in the resolution of inflammation, as shown by the persistence of the signs of solidification, characterises some cases of pneumonia, as a very rapid resolution characterises other cases.

Case II.—*Inflammation of the upper lobe of the right lung—Abscess in the upper lobe—Death on the day after admission into hospital.*—Samuel Reynolds, American, sign painter, aged 43, admitted Nov. 7, 1859, at evening.

He appeared on his admission, to the nurse, to be intoxicated. On the following morning he was too feeble in body and mind to furnish much information respecting the previous history. He stated that he had been ill for a month. Pulse 116 quick and vibratory; respirations 48. Skin cool and moist. Prolabia livid. Physical signs showed pneumonia with solidification extending over the whole of the right lung.

Treatment—Sulphate of morphia half a grain three times; whisky two ounces every two hours, and sustaining diet.

Death took place on the evening of this day.

On examination after death, considerable infiltration of serum existed beneath the arachnoid membrane, but no other morbid appearances within the skull.

The upper lobe of the right lung was solidified by inflammatory exudation, and at its inferior anterior portion was an abscess of the size of a large orange. The outer wall of this abscess was extremely thin. Firm pleuritic adhesion existed at this part so that in removing the lung the abscess was opened, and a large quantity of purulent matter escaped. The abscess had not been evacuated during life. In addition to pus the abscess contained a quantity of dirty, ash colored solid matter presumed to be the debris of decomposed lung. The abscess appeared to be lined by a pyogenic membrane.

The heart was normal, except that the right and left ventricles contained considerable coagulated fibrine, decolorized and closely intertwined with the tendinous cords. Pericardium and valves healthy.

Remarks: This patient was nearly moribund when admitted and death occurred in a few hours after the case came under my observation. Of course the case is of no value as regards therapeutical measures. It illustrates an extremely rare event incidental to inflammation of the lungs, viz: pulmonary abscess. This event will be exemplified in one of the cases of complicated pneumonia which ended in recovery.

CASE III.—*Inflammation of the entire right lung—Death ten days after admission—No autopsy.*—Thomas Barry, aged 28, laborer, Irishman, admitted Nov. 8, 1859.

This patient on his admission presented an appearance of having drank excessively, and complained chiefly of diarrhœa. He was subject to intermittent fever. The haustus quiniæ of the hospital was prescribed.

On the fourth day after his admission, attention was directed to the chest, and the entire right lung was found to be solidified. Intense bronchophony, the bronchial whisper and bronchial respiration existed over the right side.

Treatment—Opium 2 grains three times.

Nov. 13. He had been incoherent during the night. The pulse was 108; respirations 32. The diarrhœa had ceased.

Treatment—Opium as on the previous day; brandy, one ounce every two hours, and sustaining diet.

Nov. 15. It was noted that the condition of the patient on the 14th was much improved, the pulse and respirations having been less accelerated, the delirium gone, and the general aspect better. The physical signs showed continuance of the solidification of lung. The treatment had been continued.

At evening the pulse became extremely irregular. No cardiac friction sound was discoverable. Directions were given to administer milk punch freely during the night.

On this day of record (i. e. the 15th) the pulse was still irregular but less so than on the previous evening. The pulsations were 70 per minute. The respirations were 32. The skin was warm and perspiring. The patient reported better and there was no delirium.

Treatment—Opium 2 grains every six hours; brandy one ounce every two hours, and sustaining diet.

Nov. 17. It was noted on this day that the condition of the patient on the previous day was much improved. The aspect was better. There was no delirium. The pulse was regular. The treatment was continued.

On this day of record (17th) the patient was not so well. He had been delirious during the night. The pulse was 100, regular, and had considerable volume and force. The respirations were 40. The physical signs still showed solidification of the entire right lung.

Treatment—Opium 2 grains every six hours was continued. Porter 4 ounces every three hours was substituted for brandy at the patient's desire. Carbonate of ammonia 5 grains in mint water every two hours. Sustaining diet.

Nov. 18. Much worse. Pulse 120, irregular, and occasionally intermitting. Lividity of the prolabia. Face congested and livid. No sleep during the night but incessant incoherent talking.

Treatment—Brandy and nutriment as freely as possible. Death occurred during the following night.

An autopsy in this case was lost from a misapprehension.

Remarks: The sudden irregularity of the pulse on the 14th, suggested pericarditis, but the physical signs of this affection were wanting. The formation of coagula within the heart next suggested itself, and the occurrence of this accident is perhaps not improbable. No endocardial murmur, however, existed. On the 17th porter was substituted from brandy. With reference to this and the sustaining diet, I find in the record of the case the following note dated on the 19th, and appended to the record made on the 17th: "I regret very much the substitution ot the porter for the brandy. The patient should have been more efficiently sustained. He got nutriment only three times daily. More efficient support might have saved him."

CASE IV.—*Inflammation of the lower and upper lobes of the right lung—Patient able to sit up on the thirteenth day, and discharged well on the twenty-fourth day after admission.*—Justin Herbert, aged 28, bar-keeper, admitted Nov. 26, 1859.

He had been discharged from the hospital a week before his readmission. He had been in hospital ten days with intermittent fever. A paroxysm occurred on the day of his discharge, and he had a paroxysm daily on the five consecutive days.

He was attacked with persisting febrile movement, without chill, on the day previous to his readmission, accompanied by lancinating pains referred to the site of the right nipple. On the day after his readmission, he had passed a restless night. The pulse was 132 ; the respirations 40. The physical signs showed pneumonia with solidification of the lower lobe of the right lung.

Treatment—Sulphate of morphia, a quarter of a grain every six hours, and sustaining diet.

Nov. 28. At evening the pulse was 116 ; respirations 36. The physical signs showed extension of the inflammation to the upper lobe.

Treatment—Sulphate of morphia half a grain every six hours ; carbonate of ammonia five grains every four hours ; porter four ounces every three hours, and sustaining diet.

Nov. 29. Reports better. Pulse 124 ; respirations 36. Treatment continued.

Nov. 30. The pulse was 116 ; respirations 36. The physical signs showed solidification of the upper and lower lobes, the middle lobe remaining unaffected. Treatment continued.

Dec. 1. Reports better. Pulse 120 ; respirations 36. Treatment continued.

Dec. 2. Pulse 120 ; respirations 32. The inspirations spasmodic.

Treatment—The treatment in the morning was contniued, but at evening brandy, one ounce every two hours in the form of milk punch, was directed instead of porter.

Dec. 3. Improvement. Pulse 108 ; respirations 32.

Treatment—Sulphate of morphia, half a grain every six hours continued ; brandy, one ounce every three hours ; carbonate of ammonia, five grains every four hours, and sustaining diet.

Dec. 4. Pulse 118 ; respirations 30. The inspirations still spasmodic.

Treatment same as on the previous day, except that the ounce of brandy was directed every two hours.

Dec. 5. Pulse 96; respirations 20. The inspirations had ceased to be spasmodic. Treatment continued.

Dec. 7. Improvement continued. Pulse 82; respirations 28.

Treatment—Sulphate of morphia, a quarter of a grain every four hours; brandy, one ounce every four hours, and sustaining diet. The ammonia was discontinued.

Dec. 10. Patient sat up most of the forenoon. Medicine was discontinued; solid nutritious food had been allowed for several days.

Dec. 21. Patient had been asking to be discharged for a week, and his request was complied with on this date.

He reported quite well and the physical signs showed the resolution of the pneumonia to be nearly complete.

Remarks: Although uncomplicated, this was a severe case of the disease. The physical signs of complete solidification of the upper and lower lobes of the right lung were extremely well marked, but the middle lobe continued to furnish the normal vesicular murmur throughout the disease.

Opiates in this case were steadily continued throughout the disease and alcoholic stimulants given pretty freely.

CASE V.—*Inflammation of the entire right lung—Death taking place while resolution of the affected lung was rapidly progressing, on the sixth day after admission.*—William Boyle, aged 32, Irishman, laborer, admitted Dec. 24, 1859.

He stated that two weeks before his admission, after having been exposed to cold and wet while working in the swamp, he was seized with pain in the right side near the nipple. He had taken remedies before his admission, but he did not know what they were.

On his admission the pulse was 120 ; the respirations 40. The physical signs showed complete solidification of the upper lobe of the right lung, and partial solidification of the lower lobe—the latter probably being in process of resolution.

Treatment—Calomel and ipecac in small doses (gr. i and gr. ss) every three hours were prescribed by the house surgeon.

Dec. 26. The pulse was 130 ; respirations 52.

Treatment—Carbonate of ammonia, five grains every six hours ; two grains of opium every six hours ; two ounces of brandy every two hours, and sustaining diet.

Dec. 27. Pulse 124 ; respirations 39.

Treatment—Half a grain of the sulphate of morphia every four hours ; the brandy and carbonate of ammonia continued.

Dec. 28. Patient was delirious during the past night, the delirium presenting the characters of delirium tremens. Pulse 132 ; respirations 48. Treatment continued.

Dec. 29. Pulse 136, and extremely irregular and feeble ; respirations 48. The physical signs showed considerable progress in resolution in the affected lobes. Treatment continued.

Dec. 30. Death took place on this date.

The body being removed at once by friends an autopsy was not practicable.

Remarks: The following note was appended to the record of this case : "The interesting points in this case are the progress made in resolution of the affected lung, as shown by the physical signs, while the general condition of the patient was deteriorating, and the sudden occurrence of extreme irregularity and feebleness of the pulse, suggesting, as probable, the occurrence of coagula in the heart."

Case VI.—*Inflammation of the entire right lung—Convalescence on the seventh day after admission, and patient discharged on the eleventh day.*—Robert Lyttle, aged 19, American, laborer, admitted Dec. 23, 1859.

He stated that three weeks before, after exposure to wet, he was seized with pain in the side, and cough. He continued to work, however, for sometime. It is not noted when he was obliged to give up work and take to the bed.

Dec. 24. He was free from pain. The pulse was 120; the respirations 36. The physical signs showed pneumonia extending over the whole of the right lung. The upper lobe was completely solidified; the lower lobe appeared to have undergone partial resolution.

Treatment—Half a grain of the sulphate of morphia every six hours; five grains of the carbonate of ammonia every four hours; two ounces of brandy three times, and sustaining diet.

Dec. 26. The patient's condition much improved. Pulse 88; respirations 20.

Treatment—A grain of opium every four hours; wine instead of brandy, and sustaining diet continued.

Dec. 28. Improvement continued. Pulse 90; respirations not increased. Physical signs showed resolution to be progressing. Treatment continued.

Dec. 30. Convalescent. Pulse 68; respiration 20.

Treatment—Syrup of morphia to relieve cough; wine and good diet.

Jan. 3, 1860. Patient discharged, reporting quite well.

Remarks : The apparent immediate effects of the treatment in this case are marked, when the pulse and respirations are compared on the 24th and 26th days of December.

CASE VII.—*Inflammation of the entire right lung, and of the lower lobe of the left lung—Convalescence on the seventh, and discharge from the hospital on the eleventh day after admission.*—Lawrence Lewis, Irishman, laborer, aged 28, admitted Dec. 27, 1859.

He stated that he was seized with acute pain in the right side near the nipple, about a week before his admission, and for the preceding three days had kept the bed. On the 28th, the pulse was 120 ; respirations 28. The physical signs showed pneumonia extending over the whole of the right lung. The sputa were quite bloody. The treatment was a grain of the sulphate of morphia morning and evening.

Dec. 29. Pulse 132 ; respirations 28. The existence of pneumonia in the lower lobe of the left lung was determined by the presence of the crepitant râle and broncho-vesicular respiration.

Treatment—A quarter of a grain of the sulphate of morphia three times ; five grains of the sulphate of quinia three times ; five grains of the carbonate of ammonia every six hours, and sustaining diet.

Dec. 30. He was delirious during the night and complained of dyspnoea. Pulse 112 ; respirations 32. Physical signs showed no farther progress toward solidification of the lower lobe of the left lung.

Treatment—Half a grain of the sulphate of morphia every four hours ; the quinia discontinued ; two ounces of brandy every four hours, and sustaining diet.

Dec. 31. Improvement. The pulse 84 ; respirations 21. Treatment continued.

Jan. 1, 1860. Improvement still more marked. It is noted that the pulse and respirations were normal. The physical signs showed arrest of exudation in lower lobe of left lung, and progressive resolution in the right lung.

Treatment continued, except that two ounces of brandy were given every six hours.

Jan. 2. Improvement continued. Pulse 88 ; respirations 26.

Treatment—The sulphate of morphia was diminished to a quarter of a grain every four hours, and the brandy to an ounce every six hours.

Jan. 3. Convalescence was distinct. The patient was allowed to sit up. Treatment was continued.

Jan. 4. Slight diarrhœa for which was prescribed three grains of the acetate of lead and two grains of opium three times.

Jan. 7. The diarrhœa on the 4th was promptly arrested. Convalescence went on, and the patient was discharged on this date, reporting quite well, vesicular respiration existing over the chest on both sides.

Remarks : This case was rendered severe by the extension of the inflammation over the whole of the right lung and the lower lobe of the left lung. In the latter situation, however, the inflammation did not proceed to complete solidification. I have repeatedly observed in a lobe secondarily attacked, cessation of the disease at a small amount of exudation, which rarely happens in a lobe primarily attacked. The case was treated with alcoholic stimulants and the sulphate of morphia in pretty large doses. The aggravation of the symptoms on the 30th, when the opiate was diminished, and the marked improvement on the 31st, when the morphia was given in large doses, is to be remarked in the history of this case.

CASE VIII.—*Inflammation of the upper lobe of the right lung, succeeding fracture of the ribs and intermittent fever —Convalescence on the twenty-fourth day after admission and patient discharged on the twenty-seventh day.*—George Goss, aged 37, American, painter, admitted Dec. 11, 1859.

He had left the hospital about two weeks before his his readmission, having been received for fracture of two ribs. He drank freely after being discharged. He had had colica pictorum and paralysis of one of his upper extremities. His constitution was not vigorous. He entered the hospital on the 11th for intermittent fever. He did not complain of any symptoms referable to the chest, and the existence of pneumonia was not ascertained till Dec. 22. The physical signs then showed pneumonia advanced to solidification in the upper lobe of the right lung. The pulse was 100, the respirations 32.

Treatment—Five grains of Dovers' powder three times; two ounces of brandy every four hours, and sustaining diet.

Dec. 23. Marked improvement. It is noted that the pulse was not accelerated; respirations 23. Treatment continued.

Dec. 25. Continued improvement. No extension of the inflammation beyond the upper lobe of the right lung.

Treatment—The same, with the addition of five grains of the carbonate of ammonia every four hours.

Dec. 27. *Slight diarrhœa for which an enema of starch and laudanum was directed, and the carbonate of ammonia discontinued.

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*Diarrhœa prevailed very generally in the hospital at this time.

Dec. 29. Diarrhœa had ceased. The physical signs still showed solidification of the upper lobe of the right lung.

Treatment—Wine and good diet.

Dec. 31. It is noted that there was no febrile movement ; number of respirations not noted.

Treatment—Wine and good diet.

Jan. 4, 1860. Patient sat up. The signs of solidification in the upper lobe of the right lung had disappeared. He was distinctly convalescent.

Jan. 11. The patient reported well enough to leave the hospital and was discharged. On the day following I met him walking on the street.

Remarks : This was an instance of inflammation attacking primarily, and limited to, the upper lobe. The patient was a bad subject for any acute disease, but he passed through this affection safely. It will be observed in this, as in other cases, that the patient was allowed to sit up as soon as convalescence was distinct. I have been led to think that this conduces to a rapid resolution of the solidified lung. It will also be noticed that patients are discharged soon after convalescence. This is evidence that the convalescence was not retarded by debilitating measures of treatment. The mortality from a disease is not always the best criterion of the value of treatment ; the condition of the patient after recovery is a far better criterion when the disease does not tend intrinsically to destroy life, even if badly treated.

CASE IX.—*Inflammation of the entire right lung—Death on the third day after admission.*—L. Willson, aged 29, machinist, admitted Jan. 1, 1860.

He stated that he was seized on December 29th with acute pain in the side and was obliged at once to take to the bed. On the 2d of January the pulse was 120 ; the respirations 28. The physical signs showed pneumonia affecting the lower and middle lobes of the right lung. The patient had diarrhœa.

Treatment—Three grains of the acetate of lead and two grains of opium every four hours ; two ounces of brandy every two hours, and sustaining diet.

Jan. 3. The diarrhœa had ceased. The pulse was 116 ; respirations 28. The physical signs showed extension of the inflammation to the upper lobe of the right lung. Treatment continued.

Jan. 4. Death took place on the morning of this date. The nurse reported that an unfavorable change occurred during the preceding day, and that the patient suffered greatly during the night from pain and want of breath.

Remarks : The fatal termination in this case was unexpected. Something occured during the day on January 4, which rendered the disease so speedily fatal ; but as an autopsy was not made, the nature of the occurrence can only be conjectured. It is probable that some complication existed, but since this was not determined, the case is included among the cases of uncomplicated pneumonia.

CASE X.—*Inflammation of the upper and middle lobes of the right lung—Recovery and discharge on the tenth day after admission.*—Lawrence Fitzpatrick, aged 26, Irishman, laborer, admitted January 3, 1860.

He stated that two days before his admission he was seized with acute pain in the right side. He had taken, before his admission, a dose of calomel followed by castor oil. On January 4, it is noted that the pulse and respirations were not accelerated. The physical signs showed pneumonia advance to solidification in the upper lobe of the right lung.

Treatment—Half a grain of the sulphate of morphia every six hours; an ounce of brandy every two hours, and sustaining diet.

Jan. 5. It is noted that there was no acceleration either of the pulse or the respiration. The physical signs showed extension of the inflammation to the middle and the upper portion of the lower lobe of the right lung. Treatment continued.

Jan. 6. The pulse was 64, and the respirations not accelerated. The physical signs showed complete solidification of the upper and middle lobes of the rignt lung.

Treatment continued, with the addition of the muriate of ammonia, a drachm three times daily.

Jan. 8. Pulse 72; respirations 18. The physical signs showed progressive resolution of the pneumonia in the upper and middle lobes, and non-extension over the lower lobe.

Treatment—The muriate of ammonia was continued; the sulphate of morphia was discontinued; the brandy was diminished to an ounce three times daily, with good diet.

Jan. 10. Patient sat up. Pulse 78; respirations 18. Treatment continued.

Jan. 13. The patient reported well enough to leave the hospital and was discharged.

Remarks: This case illustrates the slight disturbance of the system occasionally observed in cases of pneumonia. This feature of the case is the more striking from the fact that the pneumonia affected the upper lobe, inflammation of this lobe generally being a more grave affection than when the lower lobe is the seat of the disease. Cases of this description sometimes pass under observation without a suspicion of pneumonia, if physical exploration be not practiced. The great diversity in a series of cases of pneumonia, as regards the disturbance of the circulation, the respiration and the functions generally ; in other words, the want of a constant relation of the general symptoms to the pulmonary affection, goes to show that other important elements are involved in the disease than the local inflammatory processes. This consideration has an obvious bearing on the management of the disease.

CASE XI.—*Inflammation of the entire right lung—Convalescence on the fifth day after admission, and patient discharged on the seventh day.*—Morris Hartnell, aged 24, Irishman, laborer, admitted Jan. 5, 1860.

He stated that he had been confined to the bed for five days. He was seized with a chill which was followed by acute pain in the side. On Jan. 6th, the pulse was 100 ; the respirations 40. The physical signs showed pneumonia affecting the whole of the right lung. The upper lobe was completely solidified ; the middle and lower lobes partially so.

Treatment—A drachm of the muriate of ammonia, three times.

Jan. 7. The pulse was 84 ; respirations 36. The treatment was continued, with the addition of wine, and sustaining diet.

Jan. 8. The pulse was 72 ; respirations 24. The solidification of the upper lobe of the right lung was diminished, and resolution of the middle and lower lobes was nearly complete.

Treatment—The muriate of ammonia was continued, and the wine discontinued.

Jan. 10. The pulse was 88 ; the respirations 24. Treatment continued.

Jan. 11. The patient sat up most of the day. Treatment continued.

Jan. 12. The patient reported well enough to leave the hospital, and was discharged.

Remarks: In this case the lower lobe, which was probably first attacked, was in process of resolution when the patient was admitted. The history after admission affords an illustration of the rapidity with which resolution may go on, and of a speedy recovery. The muriate of ammonia was prescribed in this, as in some other cases, with reference to a supposed influence in promoting absorption of the inflammatory exudation. It will be remarked that this remedy, with wine and sustaining diet, constituted the treatment.

Case XII.—*Inflammation of the entire right lung—Death on the second day after the date of admission.*—Joseph Flynn, aged 40, Irishman, laborer, admitted Jan. 6th, 1860.

He stated that he was seized with a chill Jan. 1st, which was followed by fever, cough and rusty expectoration, but without pain in the side. The pulse was 132 ; the respirations 40. The physical signs showed pneumonia advanced to complete solidification in the lower lobe of the right lung. Ten grains of the sulphate of quinia was prescribed by the assistant surgeon of the hospital.

Jan. 7. The pulse was 148 ; the respirations 36. The physical signs showed extension of the inflammation to the middle and upper lobes of the right lung.

Treatment—Half a grain of the sulphate of morphia every six hours; five grains of the sulphate of quinia three times; and two ounces of brandy three times.

Jan. 8. Death took place on the morning of this date. No autopsy in this case.

Remarks: The physical signs of pericarditis were wanting in this case, and so far as the history was obtained the fatal termination was due to uncomplicated pneumonia. The patient came under my observation for the first time on Jan. 7, and it will be remarked that on that date the pulse and respiration denoted extreme gravity of disease.

CASE XIII.—*Inflammation of the entire right lung—Recovery and discharge on the tenth day after the date of admission.*—James Feeney, aged 25, Irishman, laborer, admitted Jan. 7, 1860.

This patient entered the hospital just after profuse epistaxis. He stated that he had had cough for four days prior to his admission, but he had not kept the bed. On examination of the chest no signs of pneumonia were discovered. On Jan. 10, the physical signs showed pneumonia advanced to solidification in the lower lobe of the right lung. The pulse was 120; the respirations were not noted.

Treatment—Half a grain of the sulphate of morphia, morning and evening, and sustaining diet.

Jan. 11. Pulse 100; respirations 20. The physical signs showed extension of pneumonia over the whole of the right lung. Treatment continued.

Jan. 12. Pulse 96; respirations 24.

Treatment—The morphia was discontinued and the muriate of ammonia prescribed in doses of a drachm three times.

Jan. 13. Pulse 92; respirations 24. The muriate of ammonia was discontinued, and a third of a grain of the sulphate of morphia, three times, prescribed.

Jan. 15. Pulse 80; respirations 24. Resolution of the lung had gone on rapidly, and the respiration was vesicular on the affected side. Treatment continued.

Jan. 17. Patient reported well enough to leave the hospital, and was discharged.

Remarks: In this case the favorable progress of the disease was notably rapid. The patient was admitted again with pneumonia, March 26, the inflammation seated the second time in the lower lobe of the right lung. Vide case No. 22, of the series of cases of uncomplicated pneumonia.

CASE XIV.—*Inflammation of the lower lobe of the left lung—Recovery and discharge on the twentieth day after the date of admission.*—Timothy Ford, aged 45, Irishman, laborer, admitted Jan. 30th, 1860.

He was attacked a week before his admission with a chill and lancinating pain in the left side. He took at once to the bed. His habits have been intemperate, and he had drank very freely just before his present attack. He had had no medical treatment. The pulse was 100, full and strong; the respirations 36. The physical signs showed pneumonia advanced to solidification in the lower lobe of the left lung. The treatment on this date is not noted.

Jan. 31. No improvement. Pulse 108; respirations 28.

Treatment—The sulphate of morphia was prescribed, and it is noted that he took two and a half grains in the course of twenty-four hours. Two ounces of brandy every three hours.

Feb. 1. No material change. Pulse 100 ; respirations 28.

Treatment—Half a grain of the sulphate of morphia, and two ounces of brandy every four hours, and sutaining diet.

Feb. 2. Reported better. Pulse 80 ; respirations 24. The physical signs of solidification continued.

Treatment—A third of a grain of the sulphate of morphia, three times ; brandy, and sustaining diet continued.

Feb. 4. Pulse 68 ; respirations 28. Treatment continued.

Feb. 6. Pulse 64 ; respirations 24.

Treatment—Syrup of morphia to palliate cough, *pro re nata;* five grains of the sulphate of quinia three times, and brandy continued.

Feb. 7. The patient sat up a little. The morphia was omitted and the quinia continued.

Feb. 8. Convalescence progressing, and medicine discontinued.

Feb. 10. Visiting the ward in the afternoon, I found that the patient had dressed himself and was out of doors. When he came in, he said that he went out because he was tired of the bed. On the same day the case had served to illustrate bronchial respiration, bronchophony and the bronchial whisper to my private classes. These signs existed over the lower lobe of the left lung.

Feb. 11. The patient complained at not being permitted to go out of doors. Pulse 72 ; respirations 24.

Treatment—A drachm of the muriate of amonia, three times, and full diet with a little wine.

Feb. 13. Patient up and walking about all day. The signs of solidification continued. Treatment the same.

Feb. 19. The patient reported well enough to leave the hospital, and was discharged. The physical signs still showed some solidification of the affected lobe.

Remarks: The following note was appended to the history of this case: "The persistence of the bronchial respiration and bronchophony when the symptoms denoted convalescence is worthy of note."

CASE XV.—*Inflammation of the entire left lung—Recovery, and discharge on the nineteenth day after the date of admission.*—L. Vignali, aged 50, Italian, baker, was admitted Feb. 13, 1860.

Feb. 14. He stated that he had been ill for four days prior to his admission, and had received no medical aid. His habits were intemperate, and he had been drinking to excess shortly before his present attack. He attributed his illness to exposure to wet. Pulse 100; respirations 28. The physical signs showed pneumonia advanced to solidification in the lower lobe of the left lung.

Treatment—Half a grain of the sulphate of morphia, every four hours, milk punch and sustaining diet.

Feb. 16. The patient was delirious; not violent, but attempting to get out of bed if not closely watched. Pulse 100; respirations 24. Treatment continued.

Feb. 17. The patient dressed himself and went out of doors when unobserved. He did not appear to be delirious. Pulse was noted to be 25, evidently an error; respirations 24. The physical signs showed complete solidification of the lower lobe of the left lung.

Treatment—Half a grain of the sulphate of morphia, thrice: brandy, and sustaining diet, continued.

Feb. 19. Patient delirious during the night; endeavoring to get out of bed, and manifesting apprehension of danger. The physical signs showed extension of the inflammation to the upper lobe of the left lung. The pulse and respirations were not noted.

Treatment—A quarter of a grain of tartarized antimony, and a grain and a half of opium every four hours.

Feb. 20. Delirium continued, with efforts to get out of bed. Pulse 92, full and strong ; respirations 20. Treatment continued.

Feb. 21. No delirium. Pulse 68 ; respirations 28. The inflammation in the upper lobe had not proceeded to solidification.

Treatment—The antimony was omitted and the opium continued.

Feb. 22. Pulse 72 ; respirations 28. Treatment continued.

Feb. 25. Convalescing. Pulse 72 ; respirations 20. Treatment continued.

Feb. 26. The physical signs still showed solidification of the lower lobe of the left lung.

Treatment—A drachm of the muriate of ammonia, three times.

Feb. 29. The physical signs still showed solidification, and the treatment was continued.

March 2. Pulse 76 ; respirations 24. Solidification continued, and the treatment was the same.

March 4. Patient reported well enough to leave the hospital, and was discharged.

Remarks : The physical signs showed persistance of the solidification in this case after the symptoms denoted convalescence. The signs also showed termination of the inflammation in the second lobe attacked before solidification.

CASE XVI.—*Inflammation of the lower lobe of the left* *lung; resolution having commenced before admission—Recovery, and discharge on the tenth day after the date of admission.*—Charles Danforth, aged 58, American, laborer, was admitted Feb. 24, 1860.

Feb. 25. He stated that he had been ill for ten days. He attributed his illness to exposure to wet. He was just seized with a severe rigor, and shortly had severe pain in the epigastrinum. He had kept the bed, for the most part, since the commencement of his illness. He had taken calomel and Dovers' powder before his admission, and a blister had been applied over the epigastrium. His habits were temperate. The pulse was 72 ; the respirations 24. The physical signs showed pneumonia with partial solidification of the lower lobe of the left lung.

Treatment—No medicine. Milk punch and good diet.

March 6. Improvement, after the foregoing date, was progressive, and on this date the patient, reporting well enough to leave the hospital, was discharged. No medicine was prescribed ; the milk punch and good diet were continued.

Remarks : Resolution of the affected lobe was going on when the patient was admitted, and there were no indications for treatment present, save to support the system through the processes of restoration.

CASE XVII.—*Inflammation of the entire right lung ; resolution progressing at the time of admission—Recovery and discharge on the eighth day after the date of admission.*—Wm. Campbell, aged 55, American, laborer, was admitted Feb. 26, 1860.

Feb. 27. He stated that he had been ill for two months. He was taken ill when working alone in a shanty, there being at the time two inches of water on the ground. He lay upon his bed for a week without being able to leave it, and during this time he was entirely alone. He had a quart of brandy which he drank during this week. His habits, as he stated, were temperate. At the end of a week he was visited by some one who gave him thirty grains of calomel. After this he remained alone for ten days. During all this time he had high febrile movement, and could only lie on his left side. It is not noted whether he had pain or cough. Another friend at length came to him, gave him some doses of quinia and removed him, first to his own house, and afterwards to the hospital. The pulse was 100 ; the respirations 32. The physical signs showed pneumonia affecting the whole of the right lung, resolution progressing and more advanced in the lower lobe.

Treatment—Syrup of morphia, milk punch and full diet.

Feb. 28. Pulse 108 ; respirations 32. Treatment continued.

March 1.—Patient able to sit up and go down to the amphitheatre at the clinical lecture. Pulse 96 ; respirations 28.

Treatment—Brandy, three times, and full diet.

March 5. The patient reported well enough to leave the hospital, and was discharged.

Remarks : This patient was in fact convalescing from pneumonia affecting the whole of the right lung, when admitted into the hospital. He had passed through the disease under as unfavorable hygienic circumstances as could be well imagined ; alone, in a shanty, in the swamp, two inches of water on the ground, unable to leave the bed even to obey the calls of nature, and provided only with bread and brandy for nourishment.

CASE XVIII.—*Inflammation of the entire right lung, and death on the day after admission.*—John Collins, aged 33, Irishman, laborer, was admitted March 10, 1860.

March 11. He stated that he was seized five days before with acute lancinating pain in the vicinity of the right nipple. His habits were intemperate, and he had been drinking very freely for sometime when he was attacked with his present illness. The pulse was 128; respirations 52. The face was congested and the prolabia presented marked lividity. The physical signs showed pneumonia advanced to solidification over the whole of the right lung.

Treatment—A grain of opium every four hours; five grains of the carbonate of ammonia, every two hours; two ounces of brandy every two hours, and sustaining diet. Death took place on the same evening. The body was at once removed by friends and an autopsy was not practicable.

Remarks: It is evident that the condition of this patient was nearly moribund when he was admitted into the hospital.

CASE XIX.—*Inflammation of the entire right lung—Death on the second day after the date of admission.*—Jeremiah Callaghan, aged 40, Irishman, laborer, was admitted March 14, 1860.

March 15. He stated that he was subject to attacks of intermittent fever, and that his habits were temperate. A week before his admission he was seized suddenly with a chill which was followed by acute lancinating pain in the left side. He had taken an emetic, and this was the only medical treatment which he had received. He was greatly prostrated. Pulse 108; respirations 32. The physical signs showed pneumonia advanced to solidification in the whole of the right lung.

Treatment—Five grains of the sulphate of quinia, and two grains of opium, three times ; milk punch and sustaining diet.

March 16. Delirious and attempting to get out of bed frequently, but replied to all questions coherently. The prolabia and face were livid. The respirations were irregular. Pulse 132 ; respirations not noted. Treatment continued. Death took place during the evening.

An autopsy was not made in this case.

Remarks : This patient's condition was evidently desperate shortly after his admission into the hospital, as shown by the great prostration, the delirium, the irregularity of breathing, and the lividity.

CASE XX.—*Inflammation of the lower lobe of the right lung—Recovery and discharge on the sixth day after the date of admission.*—John Leden, aged 27, Frenchman, laborer, was admitted March 16, 1860.

March 17. He stated that he was seized with a chill, followed by fever and sweating, a week before his admission. Another paroxysm occurred on the day following, and another two days afterwards. He kept the bed from the occurrence of the first paroxysm. He had not had any cough, but slight pain referred to the right nipple. The pulse was 100 ; respirations 24. The physical signs showed pneumonia affecting the lower lobe of the right lung.

Treatment—Five grains of the sulphate of quinia and two grains of opium, three times ; milk punch, and sustaing diet.

March 19. Pulse 72 ; respirations 20. The physical signs showed solidification of the lower lobe of the right lung. Treatment continued.

March 21. The patient was up and dressed. Pulse 64 ; respirations 24.

March 22. The patient reported well enough to leave the hospital, and was discharged.

Remarks: The recovery in this case was remarkably rapid. Some solidification of the affected lung, however, remained when the patient was discharged. This was not considered as an objection to discharging patients who were to be comfortably situated after leaving the hospital.

To be continued.

RESECTION OF THE SUPERIOR HALF OF THE METACARPAL BONE OF THE MIDDLE FINGER.

By E. R. Mordecai, M. D., of Mobile, Ala.

Operation performed September 18th, 1859, on the right hand of Wm. Johnson, a laborer. This poor fellow had his hand crushed by a beam which fell across the dorsal surface. The limb swelled to the shoulder-joint. and the suffering of the patient was intense.

At the time that he applied to me for assistance, several months after the accident, the state of the case was this. Around the wrist-joint were the cicatrices of several *extinct* fistulæ. Pain on pressure over the joint, and when applied laterally to the lower extremities of the radius and ulna. Complete rigidity of the wrist-joint. The fingers stiff and scarcely capable of any degree of voluntary motion. The hand greatly enlarged and indurated. About the center of its dorsal surface there existed a fistulous opening which, when probed, lead down to diseased bone somewhere in the neighborhood of the carpal extremity of the metacarpal bone of the middle finger. Pain constant, and often excessive.

Rendered desperate by prolonged suffering, the patient desired that his hand should be amputated. A resection of the diseased bone was proposed, and his consent obtained with the understanding, that, while under the influence of chloroform, amputation should be resorted to in case the proposed resection should prove inapplicable.

Assisted by Drs. Redwood and Cox, I operated thus: In order to obtain ample room for a resection, not only of the carpus, but of the wrist-joint entire, if necessary, an incision was begun just above the metacarpo-phalangeal joint of the middle finger, and carried parallel with the metacarpal bone of that finger to a point an inch and a half above the wrist-joint, and thence transversely on either side, to the free borders of the radius and ulna. By disecting up these triangular flaps the whole subcutaneous dorsal surface of the hand and wrist-joint was exposed. Not a tendon was to be seen. They were imbedded in a dense, yellowish, adventitious substance, the product of effusion and condensation of plastic matter. Cutting down, successively, upon the tendons of the common extensor, I tediously dissected them up from their attachment to this accidental tissue, so that they might be drawn aside. At the point of the scalpel it was soon ascertained that the bones of the carpus and joint were sound, and that the disease was confined to the upper half of the metacarpal bone of the middle finger. This was immediately removed with the saw (crête de coq), mallet and gouge—the condition of the surrounding parts rendering the use of Liston's forceps, and the chain-saw inconvenient.

Result: The wrist-joint is anchylosed forever; but Johnson has an excellent hand; can *usefully* flex and extend *all* his fingers; and has for more than five months been actively engaged in making a very comfortable living.

PATHOLOGICAL SPECIMENS; WITH REMARKS.

By W. A. Cary, M. D., of Montevallo, Alabama.

Messrs. Editors—The article of Dr. Mordecai, of Mobile, in the April No. of your Journal, styled, "Labels for Specimens, with remarks," impressed me, forcibly, as being a convenient way of consummating a two-fold object by the same means. First, the specimens, as a contribution to your anatomical museum; second, the remarks, as a brief report of surgical cases for the readers of the *Gazette*. Therefore, under the hope that I may do your Anatomical Museum some service, and the readers of your Journal, perhaps, a little favor, I send you eleven specimens, which I am persuaded, as a contribution, will be acceptable, and prove of much more value in future, than could possibly be by remaining on the shelf of my office. The illustrative remarks that I shall give of each specimen will, necessarily, be as short as possible; yet a few of them, as No. 1 and 3, possess great interest, and would, of themselves, furnish very elaborate articles.

No. 1. A scirrhus tumor and axillary gland, taken from the right breast of a negro woman aged thirty years. In this case, the subject was seven months advanced in pregnancy. Aside from the disease of the breast, she was healthy. The tumor, with the axillary gland, was removed by the ordinary operation, under the influence of chloroform, in the month of May, 1857. It was well borne, and the wound healed rapidly, contrary to what was expected, for, as was stated, she was far advanced in pregnancy, and abortion was reasonably to be looked for. The reason for removing the tumor in the pregnant state, was the belief that after delivery suppuration would ensue, and the consequences would then be as serious, if not more so, to the patient. Believing, therefore, I was justified in removing the tumor before delivery, it was done, and the result proved, to my mind, its correctness. But the return of the disease, after delivery, very soon became manifest, and hence Specimen No. 2.

A scirrhus mamma from the same subject. Operation performed November 23, the same year. The progress of the disease was rapid ; the breast was now much larger than before the removal of the first tumor. It was removed after the ordinary manner, and all vestige of the disease taken away, as far as could be seen. No troublesome hæmorrhage took place, and but few vessels required to be ligated. The wound was closed by a few sutures, supported by adhesive strips, and no other dressing was required. It healed almost by first intention, and was well in a comparatively short time. The hope was entertained, now, that the final result of this operation would be favorable. The negro continued to do well for a few months, but the disease returned, and proved fatal within twelve months from the date of the last operation. I may remark that my observation of cancer of the breast in this vicinity, since this operation, has afforded me two other cases, in both of which I refused to operate.

No. 3. A preparation of extirpated eye, for fungous hæmatodes, in a little negro girl, five years of age. When this case was presented to me for examination, the appearance of the eye was nothing beyond a deep silvery appearance at the bottom of the orbit, and a little fullness of the inferior-posterior border when the globe was thrown upwards and inward. The pupil was above the ordinary size, and there was total absence of vision. Constitution was apparently good—no hereditary scrofulous or syphilitic disease, no enlargement of any of the lymphatic glands, no anæmic condition, abdomen not unusually prominent. I had never seen an eye presenting this appearance, and being satisfied that the fullness at the posterior-inferior border was the point to guide to a correct diagnosis, I made up my mind that it was a case of fungous hæmatodes in its incipiency, and gave an opinion that the eye should be removed. Let us see how nearly my diagnosis was verified by the operation. June 12th, 1857, the operation was performed under chloroform, the eye removed, and its connection with the optic severed as far as practicable. The little patient bore the operation remarkably well. The orbit was dressed with cold water and lint, an anodyne given, with instructions to repeat if there should be much restlessness. The case progressed favorably for a week, when the appearance in the orbit indicated renewal of the fungous growth. Suffice it to say, that such was the case, and all remedial measures were used unsuccessfully. The growth of the orbit increased until it protruded from its bony case and the eye-lids, and the lymphatic glands surrounding the orbit were involved. In this formidable state I was exceedingly puzzled to know what would be the best course. I determined at all hazards to operate again, and No. 4 is the result.

This preparation consists of the entire fungus mass that filled the orbit, with the upper and lower eyelids. The operation was performed as the other was, under the influence of chloroform. It may be stated that this operation was performed 17th October the same year ; and the result was any thing but favorable. Here, again, the orbit filled ; ulceration of the edges of the wounds soon followed ; every lymphatic gland of the face and neck was involved in disease, and a more horrible and pitiable sight I never witnessed. The other eye in the meantime, presented the same silvery appearance through the pupil as the first did, and vision was entirely lost. Death terminated in thirty days from this operation. It may be as well to mention here that every possible plan of treatment was instituted that seemed authorized by our judgment, both local and constitutional. A few words as to the eye upon examination after the operation. Upon the external tunics, and overlying the optic nerve was a firm and hard tumor the size of a small chestnut which cut under the knife as scirrhus would do, and no appearance of softening was visible within the tumor nor at its attachment with the eye. The textures of the eye seemed to have been thinned as if by absorption from the tumor. The optic nerve was much smaller than natural, and of firm consistence, and of dark brown color. The disease was evidently in the scirrhous state, and was, perhaps, as favorable for a good result of an operation as could have been asked. It will not be denied that this tumor covering the posterior, inferior and external part of the globe, and overlapping the optic nerve, was the disease proper. That it was of a truly cancerous character in the scirrhous state, and wanted, only, time and favorable circumstances to have hastened on its progress to a suppurative and medullary state, I presume none will deny. I forbear all speculation with regard to the advantages of an operation ; but will state another correllative case in few words, of a stout young man, who lived in Alabama in 1846, and was the subject of this disease, in a more local and open form, and who was under the care of Dr. Sims, now of New York, who then lived in Montgomery. Dr. Sims removed many of the enlarge facial glands, and when I saw this young man in 1847, there were many enlarged and indurated lymphatic glands of the face and neck; but the eye presented little of that silvery appearance in the pupil which characterized the case of the little negro. Its history, however, is not without its interest; for in two years, after exhausting all remedial measures advised by his physicians of Montgomery and New York, he died, thus affording incontestible evidence of the impotency of curative means.

No. 5 is a preparation of a tumor removed from the parotid region in a young man 22 years of age, in July, 1858. It began about three years before its removal, grew slowly until the last twelve months; and no perceptible cause could be assigned for it, as there had never been mumps, scarlet or typhoid fever, or any external bruise, and the constitution was without any scrofulous or syphilitic taint. Its removal was accomplished with but little difficulty. The dissection, when dipping down in proximity with the parotid gland, was carefully done, to avoid wounding any important branch of the portio dura, and one blood vessel, the posterior auris required the ligature. The edges of the wound were closed by a a few stitches and dressed with lint and cold water, and at night an aperient was given for the bowels. The cure was rapid and perfect within three weeks. Its weight after removal was two ounces; it is about the size of a small walnut, and seemed to be made up of a cheesy brownish yellow matter. Its posterior inferior attachment was somewhat stronger than was expected; and before completing its removal, a small slice of the outer border of the gland had to be removed. There was found at the center of the tumor, at its connection with the gland, a small round opening leading through the sac. Up to this time there is no evidence of a return.

No. 6 is a preparation of epithelial cancer, taken from the palm of the hand of a female, about 30 years of age. It had existed six months, and began to invade the tissues to such an extent as caused much apprehension on the part of the patient. It was seated upon the middle of the palmaris brevis, and was, as broad as a ten cent piece. If I mistake not, there was some hereditary tendency to cancer, and curative means had been adopted for its removal. No local cause could be assigned for it, as there was no necessity for laboring for a living. She was the mother of several children, and of rather robust constitution. The characteristic feature which gave to the case the surest evidence to my mind that it was something more than common, was, that incessant, pungent and burning pain, that accompanied it from the begining, and the lymphathics of the arm showing complicity also. It was finally decided to effect its removal by the knife, as our curative means which, had been adopted from the begining, were of no avail. Its removal by operation. which was done in May, 1857, resulted in a complete cure in one month; and the evidence upon removal was strongly coroborative of our early formed opinion of its being cancer. A more perfectly developed formation of cancer cells, could not be seen than was found, according truly in every character to those mentioned by Dr. Costa in the Medical Examiner, 1852, in an article on Epithelial Tumors. The cases brought forward in his article by the various observers show very conclusively, that the extremities are the least subject to this variety of cancer. The general cause laid down by writers, is local irritation. With regard to their frequency in both men and women, I believe that at present, observation has made it more prevalent in men. Those who are anxious for reliable information on this subject would do well to consult Bennett's Work on Morbid Growths.

No. 7 is a preparation of an amputated finger, for a pistol shot, at the metacarpal joint. The wound was accidentally received, and involved mainly the termination of the first phalanx of the middle finger. It occurred in the month of November. 1857. As recovery was hopeless, immediate amputation was resorted to, and the finger was removed by a double flap at the metacarpal joint. A good cure resulted in the usual time.

No. 8 is a preparation of intussusception of the ilium, occurring in a negro man, a blacksmith, of about forty years of age, in the month of October, 1857. This case was one of consultation, was visited only a few hours before death; and the evidence was strong to mind that there was a stricture of the bowel, and that death was inevitable. The negro was in the enjoyment of usual health, had a strong and vigorous constitution for one of his age, and was taken forty-eight hours before I saw him, with the usual symptoms of colic, after making a hearty dinner on tough coleworts and bacon. His attending physician prescribed calomel and opium, and applied mustard and fomentations. The symptoms were relieved for a while, but returned with renewed violence. There was much tympanitis and pain in the abdomen, vomiting of stercoraceous matter, and no action from the bowels. Every variety of means was used calculated to afford relief.

Among others was lard in large quantities, melted, and drank as warm as possible. I mention this remedy because I recollect to have seen a case reported where there was stercoraceous vomiting (was evidently incarcerated bowel), and which was relieved in this way. I believe it to be a good remedy, and have used it frequently. Here, however, Nature had finished her work, and all the appliances of our art would have been useless, unless the diagnosis had been early and correctly made by the attending physician, in which case the use of the rectum tube, and the infusion of belladonna and tobacco would, in all human probability, have relieved the case. The examination of the body fourteen hours after death, disclosed the whole alimentary tube blackened, and in the right iliac region especially. The diagnosis was confirmed. I never saw a more extensive incarceration, and I have seen several. I will state, in relation to this man, that he had, during the summer, been kicked in the abdomen by a horse when shoeing him, and was confined for a few days.

No. 9 is a preparation of the stomach of the same man (the blacksmith), which presents evidence of disease. It was supposed in his death that there was a probability of poisoning, therefore it was suggested to examine the stomach. No sufficient amount of disease was found authorizing this conjecture ; and I am well satisfied that his eating so largely of such indigestible food as the coleworts and also of peas (which latter I had forgotten to mention), together with the straining tendency daily upon the bowels, exerted at his ordinary work as blacksmith, were the main things giving rise to the disease. Would not this be an interesting point for observation in this class of diseases, to ascertain what influence different trades or occupation might exercise in the production of this disease? Will the profession take this thing more fully into consideration, and let us profit by the result?

No. 10 is another amputated finger for a wound of the greater part of the hand inflicted by a steam saw-mill on a negro twenty years of age, in the month of August, 1856. The thumb was cut off by the saw at the last joint, and a long and deep wound, extending from the carpal joint through the muscles of the thumb, cutting the volar branch of the artery. The middle finger was considerably comminuted from the second to the last phalanx, and required to be removed. The little finger, also, was seriously hurt. The boy recovered from his wounds in six weeks, and no serious constitutional disturbance followed. The only thing dreaded in the case was tetanus, and the nervous symptoms were combated with anodynes.

No. 11 is a genito-labial tumor, taken from a white female 30 years of age, in the month of April, 1859. She is the mother of a large family, and did the work mostly, for her household. This tumor began about six years before its removal, first by a pain in the labium of dull and heavy character, followed by an itching and a slight redness of the skin, and finally swelling. For the first years its growth was slow; but in the last two it was rapid. The pain was never at any time extraordinary, and the most annoyance it gave was from its size, having to be kept suspended by a bandage. There had, within the last twelve months, been hemorrhage that was troublesome, and at one time, a few days before its removal, it was rather exhausting. The glands of the groin did not seem to be involved, neither was there any sympathetic derangement of the bladder. This tumor was attached to the left labium by a kind of foot-stalk (peduncle) about an inch thick, mainly on that portion covered by epidermis. Enlarged veins were visible upon the inner border of the labium and over the whole external covering of the tumor, giving to it a bluish cast. Examining the attachment carefully, I became satisfied that there was nothing to be feared from hemorrhage. After making the parts as tense as possible by holding the tumor in the left hand, with a single stroke of the knife the attachment was severed, and the large and ugly development was thus removed. Little bleeding followed, and it was soon arrested by cold water. The incision required for its removal was made to penetrate a little below the external tunics into the muscular fibres, and the dressing was simply cold water. No unpleasant effect followed. The parts healed by a mild and healthy suppuration in three weeks, and the woman, up to this time, has not the least evidence of its return. The particular class of tumors, that this correctly belongs to I have been wholly unable to decide, notwithstanding I have sought to do so from the various works at my command. Professor Gross' Elements of Pathological Anatomy says but little upon the diseases of the external genital organs of the female. It is generally acknowledged that polypous tumors occasionally grow from the vulva, and I am induced to believe this is one. Upon the examination of this tumor, it was found to contain a firm gelatinous mass, of a dull whitish color, freely exuding a fluid of an alkaline taste, and of a yellowish color. Its connection to the external covering was firm and consistent, and there was no proper sack lying under the outer covering. This tumor weighed 11 ounces after its removal. Speculation with regard to what could have given rise to it, is the most that can be done. I will mention, as respects her history, so far as I could learn it from my examination of the case, which I was inquisitive, to procure, that she had no recollection of being injured by a fall or bruise on the parts ; and that in parturition she had never any abscess of the labium, nor any ulcers, nor any disease of the external organs.

[The foregoing specimens have been received in good order, and are now in the Museum of the New Orleans School of Medicine. They are a valuable addition.—Eds.]

A REMEDY IN YELLOW FEVER.

By F. Poland, of Houston, Texas.

Dear Sir: I have always looked upon fever, or rather the phenomena constituting it, to be the result of a too rapid oxidation of the tissues—the blood suffering a diminution of the normal proportion of oxygen.

Hence the carbonized condition found after death. This condition is strongly marked in all low forms of fever, but more particularly in yellow fever. It occurred to me while meditating upon this terror of our otherwise lovely clime, that if we could find some medicinal agent capable of arresting the carbonization of the blood until the morbid agent, of whatever nature, should have exhausted itself, we would be in possession of a powerful auxilliary in controlling the mortality resulting from this dread disease.

Such an agent would require three properties. Tonicity as applied to its action on the organic contractility of the capillaries ; a hæmostatic action locally, entering the circulation, might form combinations refrigerant and sedative ; while, at the same time, it became the source whence should be derived the requisite oxygen for the depraved blood. Another requirement, highly important, being the power which it ought to exert over the functions of liver, skin and kidneys. Nitro muriatic acid and chlorine seemed to possess all or most of these requisites. I ventured to make a trial with them during the last epidemic.

I would remark that the type of disease here very much resembled that which occurred in New Orleans in 1854. Though I was unable to make full notes owing to the many obstacles to an extended experiment, the results are, I think, sufficient to justify me in recommending the acid mixture to the profession.

I am unacquainted with Dr. Fenner's mixture. The mixture I used was the following

℞ Acid Nitro Muriatic.
Liq. Chlorini aa. ʒij.
Syrup Aurant ℥j.
Aqua dist. q. sulf. mist. ℥vj.
S. tablespoonful every two or three hours.

I used it in all stages of the disease, and I thought it acted most happily in those cases in which a hæmorrhagic tendency was strongly marked. In the highly sthenic cases that are so frequently met with its use should be preceded by the lancet. In some of the cases treated, hæmorrhage occurred from the nose; in others from the gums and nose simultaneously. In those not complicated with black vomit, the discharge from the bowels consisted most frequently of pure blood, at times mixed with shreds of mucous. In some of the patients a purpureal condition followed the subsidence of the fever. This condition occurred among the patients of some of my fellow practitioners. In one of my cases, that of a young

Irishman who had been subjected to a most terrible sweating before I saw him, the body was covered with blood boils, the gums being puffy and apparently ready to burst. Under the acid mixture, in 24 hours the gums assumed a natural pink hue, and the boils changed to a bright healthy color. Patient recovered.

In five cases with black vomit the mixture acted charmingly. While under its use, I have seen the vomit checked, the discharges from the bowels assume a natural character, and a strong tendency established towards health. Only one of the black vomit cases recovered. I attribute the failure to the neglect on the part of nurses. I found it a matter of extreme difficulty to convince nurses, friends, or relatives, that black vomit should not be considered fatal.

Houston, April 26, 1860.

SPECIAL SELECTIONS.

AMERICAN MEDICAL ASSOCIATION.

Thirteenth Annual Meeting, *held at New Haven, June 5th, 6th, and 7th*, 1860.

Reported expressly for the Medical and Surgical Reporter, by Dr. J. Solis Cohen.

First Day's Proceedings.—*Morning Session.*

The members of the Association convened at the Chapel of Yale College, and at 11, A. M., were called to order by the President, Henry Miller, M. D. of Kentucky.

A prayer was offered by Prof. Fisher of Yale College.

Dr. Jonathan Knight, of Connecticut, on behalf of the Committee of Reception, welcomed the members of the Association to the hospitalities of the city. He spoke in graphic terms of the benefits accruing to the profession and to the world by the annual gatherings of the Association, which kept up a good feeling between distant members of the profession; he recommended such modes of action as would advance the general interests of the profession. He gave an epitome of the gradual progress of medicine, and dwelt at length upon the improvements in surgery, made during the present century, alluding to the operation of lithotripsy, the ligation of the large arteries, and the introduction of anesthetic agents. The address was listened to with profound attention, and greeted with marked applause.

Dr. Charles Hooker, Professor of Anatomy and Physiology in the medical department of Yale College, as Chairman of the Committee of Arrangements, addressed the Association as follows:

"*Mr. President, and Gentlemen of the American Medical Association:*—It is with unwonted gratification that the Committee of Arrangements welcome you to the City of New Haven. And we only bespeak the common feeling of our citizens in saying that we are delighted—nay, proud—to receive you as our guests. We feel that any city is highly honored to become the chosen place of meeting of the American Medical Association—a select delegated National Congress, representative of forty thousand members of a learned and humane profession. As a city, we appreciate this honor, and should be ungrateful did we not receive you with generous and cordial welcome. You meet, gentlemen, for a great and noble object—for the promotion of science, vitally linked with the interests of humanity. Your meetings have a most happy influence in strengthening those ties by which the great Fraternity of Medicine are bound in social compact. Another salutary incidental benefit of your meetings, results from their affording an annual period for relaxation and social enjoyment.

Too many physicians prematurely break down in their career of usefulness, in consequence of unremitted and arduous application to their professional duties; and many of you now present, whose exhausted physical and mental energies need recruiting, could hardly have been drawn away from your routine of toil and care, but for your sense of bounden duty to aid in the great object of this Association. We congratulate you, therefore, brethren, on this annual recurrence of our National Medical Jubilee. In behalf of the Faculty of Yale, we welcome you to the halls of this ancient seat of learning, in which you are invited to hold your sessions; and in behalf of the citizens of New Haven, we tender you the hospitalities of our city.

We hope that to all of you this meeting will be a session of pleasant social intercourse long to be remembered for the many friendships here formed; and we truts that the harmony and wisdom of your counsels will efficiently promote the great benevolent objects of our organization."

He then gave notice to the members that arrangements had been made to accommodate the meeting of the different sections as follows:

On Anatomy and Physiology—in Prof. Woolsey's lecture room.

On Surgery—in the Geological Cabinet.

On Practical Medicine and Obstetrics in the Geological Cabinet.

On Chemistry and Materia Medica—in the Chemical Laboratory.

On Meteorology, Medical Topography, Epidemic Diseases, Medical Jurisprudence and Hygiene—in the Chemical Laboratory.

At the last annual meeting in Louisville, it had been recommended to divide the Association into the above sections, in order to facilitate the transaction of business.

After the calling of the roll by the Secretary, Dr. S. M. Bemiss, of Ky.,

On motion of Dr. John Atlee, all the medical officers of the Army or Navy present, were invited to take seats in the Association.

The committee appointed at the last meeting to prepare a code of parliamentary rules for the government of the Association, stated that their report, chiefly the work of Dr. Chas. A. Lindsley, of Conn., was ready, and as it was brief, arrangements had been made for its immediate commitment to the press and distribution among the members, if adopted by the Association.

After some debate, the report was laid on the table.

A recess was here allowed, to permit the delegates from the different States, to choose their respective member of the Committee on Nominations.

At a quarter before one, the Association was again called to order, and the following gentlemen declared the Committee on Nominations:

District of Columbia—Dr. Boyle.
Maryland—C. C. Cox.
Kentucky—R. I. Breckenridge.
North Carolina—James H. Dixon.
Tennessee—I. S. White.
Delaware—Lewis P. Bush.

Louisiana—Austin Flint, Jr.
Minnesota—D. W. Hand.
Georgia—N. W. Brown.
Massachusetts—D. Humphreys Storer.
Maine—Amos Nourse.
Indiana—Daniel Meeker.
New Jersey—J. S. English.
Rhode Island—James H. Eldridge.
New Hampshire—Geo. H. Hubbard.
Illinois—A. S. McArthur.
Mississippi—U. G. Williams.
Michigan—C. L. Ford.
Pennsylvania—Wilson Jewell.
Iowa—D. L. McGugin.
Ohio—Robert Thompson.
Missouri—M. A. Pallen.
Vermont—Charles L. Allen.
Virginia—James H. Connag.
Connecticut—L. N. Beardsley.
South Carolina—H. R. Frost.
New York—H. D. Bulkley.

A motion was passed to invite the members of the Legislature of Connecticut, then in Session at New Haven, to be present at the Afternoon Session, as the address of the retiring President, which would then be delivered, would contain points of medico-legal interest. On motion, the Association adjourned to meet again at 3, P. M.

Afternoon Session.

At 3, P. M., the Association was called to order by Vice President, H. F. Askew, of Delaware.

Gov. Buckingham and Lieut. Gov. Catlin, of Conn., on the platform, were introduced to the meeting by the chairman.

The retiring President, Dr. Henry Miller, of Ky., then read his valedictory address.

Our space does not permit us to give this address in full. We subjoin a few extracts.

"*Gentlemen of the American Medical Association:*—It affords me a great satisfaction to greet you as representatives of the American medical profession, in this beautiful city—the city of Yale College—a city whose intelligent legislation has made ample provision for the education of her children. Let us accept our annual meeting on this classic ground as a token that our deliberations shall favor medical education, the improvement of which was the fundamental design of our National Association. In order that this great object should be readily obtained, I need not remind you how necessary a spirit of moderation is to all our discussions, and most fervently do I hope such a spirit prevails, to preside over all our sessions.

"The duties of the President of this Association are exclusively parliamentary. He is not even empowered to fill vacancies in subordinate committees, much less to give information to the Association of the state of the profession, which, it may be presumed, has occupied his thoughts. During my term of office I have been obliged to assume the power of filling vacancies; and in the performance of this, my last official act, I shall take the liberty of adverting to topics of high concern, not only to our profession, but to the public at large.

"At the last meeting of the Association, a Committee on Criminal Abortion made their report, which was received and referred to the Committee on Publication.

The resolutions appended to the report were adopted, and the President and Secretary authorized to bring this important subject, in the form of a memorial, before Congress, and the several legislatures in the different States of the Union. By reference to the proceedings of the last annual meeting, it will be seen that the committee were requested to continue their labors, and take such measures as were necessary to carry into effect the spirit of the resolutions. The chairman opened a correspondence with me early last winter, offering to place at my disposal extra copies of the report, and also various papers published by him in the *N. A. Medical and Chirurgical Review*, containing all the matter necessary for the several legislatures to know, to act properly in the premises. I am happy to acknowledge my obligations for this gentleman's valuable assistance, not only in furnishing the documents he did, but in preparing a memorial, and an address to the State Medical Societies, asking their coöperation to bring this matter before the legislatures of their respective States. The memorial was transmitted, in January last, to the President of the United States, and to the Governors of each of the States and Territories of the Union, the legislatures of several of the States being at the time in session. Of the disposition which has been made of these addresses I am not informed, but may indulge the hope that their Excellencies have submitted them to their various legislatures, or will embrace the earliest opportunity of doing so. From want of knowledge of the address of all the State Medical Societies, I was forced, in some instances, to direct prominent medical gentlemen in various States, through whom I hope the papers reached their destination. I would here recommend that measures be taken by this Association to obtain annually a list of the various medical societies, and the address of their officers, to be published in our transactions. Besides permitting facility of correspondence, this would tend to bind our medical organizations more closely together, and render them more effective in the great work which it is proposed to accomplish through their instrumentality.

"Having laid before you, gentlemen, the measures which have been taken to carry into effect the resolutions adopted at the last meeting of the Association on this interesting subject, which involves the honor of our profession and the great interests of society, it becomes my duty to warn you that obstructions may be thrown in your path, which may require years of ceaseless vigilance and unremitting effort to overcome the popular ignorance on this subject, while many in your own ranks are to be watched. Popular sentiment either winks at abotion in the earlier periods of fœtal development, or only admits it as an indiscretion on the part of the mother, or rashness on the part of the practitioner. This opinion is known to be based upon erroneous views of physiology, derived doubtless, as all such errors are, from the false speculations of physiologists and naturalists of a former age. Would a poor, delicate minded mother, who would shrink from the very idea of committing an immoral act, relieve herself of that which would otherwise become a burden upon her, were she informed by her physician of the enormity of the crime? The truth should be generally promulgated, that from the moment of conception, the new being, microscopic though it be, is endowed with all that appertains to the development of man. It is at once an individual being, and no more a part of the mother, though she bears it within her, than it is of the father; and is no more dependent on her during its development in the womb, than after birth, when it draws its sustenance from her breast. Were this taught universally, no woman, however degraded or fallen into vice, would go so far as to permit the destruction of her offspring.

"It is difficult for legislation in a free country, where the people are the source of all political power, to rise higher than popular sentiment and intelligence. But it is the duty of all our legislatures, in questions which can only be determined by the science of medical jurisprudence, to endeavor to elevate popular sentiment and remove the ignorance upon this point, rather than to degrade themselves. The necessity of legislation upon this point has been clearly pointed out by the chairman of the committee, and plausible suggestions for the enactment of a suitable law have been prepared by him. We hope the appeal made will not have been in vain.

"The subject of medical education has occupied a large share of the attention of the American Medical Association since its first organization. It was, indeed, the urgent necessity of reform in the administration of its important interest to the profession which called forth from the Medical Society of the State of New York, a design for a National Medical Association, composed of delegates from the different medical societies and colleges, to meet in New York, in May, 1846, and afterwards adjourned to meet in Philadelphia, in May, 1847, where it was resolved into the American Medical Association, which has since been in vigorous existence. Unfortunately, there have been differences of opinion on the points of medical education, between those of our profession who occupy the position of professors and those who do not, and I may claim to be a mediator between them, as I have been with them, man and boy, for upwards of forty years, engaged in the study and practice of medicine, and for twenty-one years professor in a school, which at one time ranked third in the United States, in regard to the number of its pupils. Having laid aside the professorial garb two years ago, and become again one "among the herd," I am qualified to act as a "go-between."

"The system of medical education adopted in the United States, is derived from our British forefathers, and recognizes the right of the great body of the medical profession to preside over the initiation of candidates for its honors and emoluments.

"On the continent of Europe young men are transferred from the gymnasiums to the academies to receive their first lessons, as well as the finishing instruction in the profession of their choice. The different effect of this system from our own is calculated to do injustice to our institutions. The medical schools of this country have always, at least in theory, admitted that it is at once the high privilege and duty of all regular members of the great medical body to receive properly qualified and educated young men into their offices as students, to prescribe their studies, and to prepare them to profit in the largest manner, by the advantages they can nowhere obtain so well as in a properly regulated medical school. The founders of our first medical school were those who first learned from private instruction before they went abroad to the schools."

Here the history of several distinguished medical men who received their first medical education in the private office of a practitioner, was alluded to.

"These men established on this side of the Atlantic, an institution, in which the American education by private tuition might receive its finishing touch and reward, without the risk of the dangers incident to travel in the old world.

"Previous to the establishment of a medical school in Philadelphia, most of the students of medicine received their education in the shops of practitioners, where medical lore was imparted, and the practical part of the apothecary carried on; and after the school was started, a Philadelphia graduate was looked upon as something superior, and more reliable than the less favored multitude of physicians.

"If, according to our American system, medical education has its beginning in private tuition, and completed in medical schools, it follows necessarily that it is the function of the schools to receive their students at the hands of private teachers engaged in the practice of their profession, and to require vouchers that they have gone through the proper course of necessary training.

"To dispense with this preparatory course would be a violation of the contract between public and private individuals, and also be an egregrious wrong to the students themselves, by an attempt to instil into their minds an instruction which, by previous culture, they are not prepared to receive.

"The true distinctions between physicians are not between professors and laymen, but between public and private teachers of medicine. Were medical instruction among us entirely committed to the schools, as in most European countries, this distinction would not exist."

Dr. Miller went on to say, that enough precaution was not taken even in selecting professors; that many teachers were unfit for their position, and their examinations of students were a farce. The qualifications of professors ought to be insisted on as well as the qualifications of students.

He spoke of the practical essays of Dr. Drake on medical education, published in 1832, in which he complained of the necessity of a higher standard of medical excellence, and the extraordinary increase in the number of medical colleges in the United States, and stated that one cause is a want of due care in the selection of professors, by which, at present, the standard of excellence is such as to bring into responsible position those of even less than mediocrity in medical lore and literature.

The necessity of reform in the selection of teachers and the examinations of candidates, was fully insisted on.

The Secretary, Dr. Bemiss, of Ky., then read additional names of delegates whose credentials had been examined by the Committee on Credentials since the morning meeting.

The Nominating Committee here reported the following names as those of officers for the ensuing year. The gentlemen nominated were elected by acclamation:

President—Eli Ives, Conn.

Vice Presidents—Wilson Jewell, Pa.; A. B. Palmer, Mich.; Jos. P. Logan, Ga.; Jos. N. McDowell, Mo.

Treasurer—Caspar Wistar, Pa.

The Chairman then appointed the following escorts to the officers elect:

For Escort to President—Jonathan Knight, Conn; Dixi Crosby, N. H.

For Escort to Vice Presidents—W. C. Snead, Ky., Wm. Brodie, Mich.; Edward Warren, Md.; R. C. Foster, Tenn.; K. J. Bowditch, Mass.; Lewis A. Sayre, N. Y.; Jno. L. Atlee, Pa.; Austin Flint, Jr., La.

A number of communications were then read, inviting the members of the Association to visit the carriage factories of Messrs. J. & D. Cook & Son, and Messrs. Laurence, Bradley & Pardee, and also an invitation from Wm. H. Russell, M. D., to visit the evening drill and parade of the students in his Collegiate and Commercial Institute.

These were accepted, and hours set apart in which the members could visit the above places without interfering with attendance on the meetings of the Association.

Business was then suspended while the officers elect were conducted to their places by the Committees of Escort, and severally introduced to the Association by the Chairman, Dr. H. F. Askew of Delaware.

Dr. Eli Ives, President, in taking his seat, made a short address, in which he stated that, in giving thanks for the honor conferred upon him, he would be ungrateful not to publicly thank the profession for all he was and all he possessed. All his property and reputation had been derived from his profession, and therefore deserved his thanks. His father had been a physician, and one of the founders of medical societies; he had two sons, and one grandson, physicians. He had always loved and enjoyed his profession, and to all present he would repeat what Dr. Rush remarked to his class in 1801–2: "Gentlemen, if you don't like your profession, the sooner you leave it the better." He had been practicing medicine longer than any present, and that when he could no longer do so, he would himself be carried to the bedside.

Dr. Wilson Jewel, of Pa., stated that it is not customary for Vice Presidents to make addresses on their election, or to preside over the deliberations of the electing body. The first he would not attempt, but at the request of the President (who is too aged and feeble to preside), he would attempt the latter, and all he asked was allowance for any of his infirmities. He would endeavor to preside with strict impartiality.

Dr. N. S. Davis, of Ill., introduced the following resolutions, to carry into effect the arrangement adopted at the last meeting of the Association, to facilitate the transaction of business in the consideration of scientific matters by the division into sections :

Resolved, That the general meetings of the Association, after this day, shall be restricted to the morning sessions, and the afternoon sessions commencing at three o'clock, shall be devoted to the hearing of papers and discussions in the several sections.

Resolved, That each section shall choose its own officers, and make its own rules of order.

Resolved, That all essays, voluntary communications and reports, except those from the officers of the Association, and the committees on medical education, medical literature, and the committee on prize essays, shall be first presented or referred to the appropriate section and receive its recommendation, before they can be referred to the committee on publication.

The first and second resolutions were adopted. The reading of the third resolution called forth considerable discussion, during which several amendments were proposed and withdrawn. Some members thought that everything appearing in the printed account of the Transactions, should undergo proper revision and alteration by a special committee ; others were of opinion that the Association was not responsible, as an association, for everything that emanated from them, and therefore addresses and papers should appear in the original language of their authors without alteration. Several gentlemen refused to submit their papers to any revision, and stated that if the Association did not choose to print them as they were, they would publish them themselves at their own expense. Over an hour was consumed in this discussion, when, on motion, the resolution was laid on the table to give the mover an opportunity of so altering it as to meet the views expressed by the different members.

On the recommendation of Drs. Timothy Child, and David S. Conant, Dr. Wm. B. Little, of San Francisco, Cal., was admitted a member by invitation, there being no representative from his section of the country, a member of the Association. The following gentlemen were appointed a committee on Voluntary Communications:

E. D. Force, Ky., Thomas W. Blatchford, N. Y., N. D. Davis, Ill., —— ———, Rochester, N. Y., Dr. Renchberger, Pa.

The Treasurer, Caspar Wister, M. D., of Pa., then made his report:

He reported that out of a list of 2,000 names, he had only some 200 annual subscribers to the volume of Transactions, and these were obtained after the persisting solicitations of the Treasurer, addressed to each permanent member, announcing the publication of the last volume of Transactions. Of the printed volumes of Transactions, there were still on hand, for sale at the following prices: years 1846 and 7, of the organization of the Association, 50 cents each.

Vols. 1, 2, 3, and 4, out of print.

Vols. 5, 7, 8, 9, collectively as a set, $5 00, separately $2 00 each.

Vols. 6, 10, 11, at $2 00 a volume.

Vol. 12, at $3 00.

Cash on hand, April 15, 1859 . . . . $651 00

Received from delegates for last volume of Transactions	2,430 00
On hand	597 61

The report was accepted, and referred to Committee on Publication.

On behalf of the Committee on Publication, Dr. Caspar Wister reported that the delay in the appearance of the last volume of the Transactions had been caused by the delay of the authors of several articles in returning corrected proofs of their articles, the proofs having in one instance been detained 9 weeks, and in another 14 weeks. The committee hoped some action would be taken to prevent a similar occurrence in the future. The cost of printing the last volume of Transactions had been $1,659.

There were remaining on hand, of the volumes containing the proceedings of the first meeting of the Association, 45 copies ; vol. 5, 241 copies ; vol. 6, 11 copies ; vol. 7, 51 copies ; vol. 8, 212 copies ; vol. 9, 242 copies ; vol. 10, 165 copies ; vol. 11, 152 copies ; vol. 12, 497 copies.

The report was received and referred to the Committee on Publication.

No other committees being prepared to report, the Association, on motion, adjourned.

SECOND DAY.

Wednesday, June 6, 1860.

The Association was called to order at the Chapel of Yale College, at 9 o'clock, A. M., by Vice President Dr. Wilson Jewell, of Pa. The minutes of the previous day's proceedings were read and adopted. On motion of Dr. Gardner, of Mass., the rules of order were suspended, to allow V. P. Dr. Logan to offer a resolution. Dr. Logan then tendered his resignation as Vice President, which was accepted.

The Committee on Education, through Dr. Reese, of N. Y., Chairman, made the report.

The report urged the adoption of a higer standard of qualifications than are now considered requisite. The present winter sessions were considered too short, and they thought the session should continue six or nine months, and there be fewer lectures on each day.

They urged the introduction of chairs on various subjects, now not taught in medical schools, such as hygiene, medical literature, etc.

The report considered sufficient attention was not paid to clinical (at the bedside) instruction, and that the required curriculum of study should be extended to various collateral branches, without a knowledge of which, no man could properly perform his duties as a physician, even though he possess diplomas from regular medical schools ; and they urged upon the Association the importance of taking prompt and efficient action to increase the standard of the profession, as whatever reform was to be instituted, should emanate from this body, and the matter should be taken in hand immediately, instead of appointing successive committees, thus incurring a year's delay, again and again.

The Committee desired to be considered as having no desire for any fastidious reform, but only desired such changes as would increase the general interests of the profession.

In conclusion, the Committee offered the following preamble and resolutions, which they desired to be considered as part of their report :

PREAMBLE.—*Whereas*, It is the deliberate judgment of the American Medical Association, that the time has fairly come for the introduction of improvements into the present system of medical education, which shall elevate the existing standard of qualification for the Doctorate, and especially for securing and encouraging a higher degree of attainment in the science and of skill in the art of medicine than has been heretofore accessible to students in our country, and

Whereas, This body of American Physicians is regarded by our fraternity everywhere, as the acknowledged head and representative of the medical profession in the United States, and it is therefore looked to for prescribing the terms and qualifications of those who are henceforth to be admitted and recognized into our fellowship as brethren and equals in the profession ; therefore,

Resolved, That it be hereafter regarded as an indispensable pre-requisite to enrollment as a student of medicine in the office of any regular physician, that the party shall be at least seventeen years of age, of good moral character and habits, and shall have received a good English, classical and mathematical education, and be able to read and translate the Latin language, and have an elementary knowledge of Greek, so far, at least, as to be able to trace the derivations from it to the English language.

Resolved, That this same requisite be made indispensable before matriculation in any regular medical college can be allowed, and that the faculty of such College, and the preceptor of such candidate for enrollment, be required to ascertain such qualification by actual examination, and to certify thereto.

Resolved, That the term of study in the office of a regular practitioner, including attendance upon lectures, be, and is hereby extended to four years, the last year to be mainly employed in receiving clinical instruction in medicine, surgery and midwifery.

Resolved, That three full courses of lectures in a regularly incorporated college, or other body of lecturers recognized by the Association, be required of all candidates for the degree of Doctor of Medicine. Said candidate may be admitted to examination after three full years of study, on all the branches which they have been required to study, except clinical medicine, as above.

Resolved, That the period of instruction in every College be extended through the full term of nine months in each year, and that this time be divided into two sessions, the first to be chiefly occupied in instruction in the elementary branches only, and the latter to the practical and more complete branches. Those in attendance upon the former to constitute the junior class, and that upon the latter the senior. Not more than four lectures to be delivered on each day in either of the departments, and that each lecture be preceded by a recapitulation, in the form of question and answer of the lectures of the day before.

Resolved, That the number of professors in each college should be increased, so as to bear some proportion to the largely increased number of branches, a knowledge of which is necessary. This increase to be made in addition to those holding clinical chairs.

Resolved, That the examination of all the students for matriculation, which admits them into the junior class, shall be repeated before their entrance into the senior class, either by the Faculty, or by examiners appointed by them for the purpose, who shall certify in the one case to the fullness of their preliminary education, and in the other to their improvement, under courses of instruction in the junior or elementary department. Admission to the senior class should be contingent upon this latter examination. Similar examinations should be required at the commencement of each session, as to the improvement made in the preceding term.

Resolved, That the final examination for graduation, if made by the Faculty, should be in the presence of each other, and should be witnessed and certified by a board or committee of equal numbers, to be appointed for the purpose by each State Society, within whose bounds any college may be located, or by the Faculty, and without whose approval the degree should not be conferred. Due notice to be given by the faculty of the time and place for the examination, and each candidate to be separately examined.

Resolved, That no medical college be recognized by the American Medical Association to be complete in its organization, and prepared to furnish the requisite instruction, which does not either possess a hospital of its own, or which has not made arrangements with a hospital containing not less than 80 beds, for the students of the college receiving regular clinical instruction, before being licensed to practice.

Resolved, That the so-called "College Clinics" cannot, in any useful or practical sense, be looked on as furnishing an adequate substitute for the clinical teaching required.

Resolved. That this Association regard with marked disapproval a practice which prevails with some of the Faculties of the Schools, viz: of examining those students who are candidates for a degree, before the expiration of the regular session, and while the lectures are still in progress.

Resolved, That the titles of the several chairs in a school, as announced in its curriculum, ought to indicate a real teaching of the branches thus virtually promised to be taught, and not to be assumed merely in conformity with further usage, or to gratify the temporary whim of a professor, to have an appendage to the title of his chair, while in the very next year he may abandon, and consent to its being appended to some other chair, or to its being omitted entirely in the next annual announcement. We may instance this, attaching physiology to anatomy, the latter being the substantive branch, and of itself taking up the whole time of the professor during the entire session, which is still too short for its legitimate purposes. Still more common and misleading is the appendage of diseases of women and children to midwifery, and that of medical jurisprudence at one time to materia medica, at at another to midwifery, at a third to chemistry.

All of which is respectfully submitted.

(Signed) D. MEREDITH, Chairman, (N. Y.)
JOHN BELL, (Pa.)
W. K. BOWLING, (Tenn.)
Z. PELETIER, (Mich.)
CHAS. FISHBACK, (Indiana.)
Committee on Medical Education.

On motion of Dr. McDowell (Mo.), the Association went into Committee of the Whole to consider the above resolutions, and after some debate, arose, reporting progress, and asked leave to sit again.

Report of Committee on Medical Literature was referred to the Committee on Publication without reading.

The Committee on Nominations reported that they recommended the next meeting of the Association to take place in Chicago, Ill., on the first Tuesday in June, 1861.

They nominated the following officers :

Secretaries—S. G. Hubbard, Conn.; H. A. Johnson, Ill.

Committee of Arrangements—N. S. Davis, Ill.; G. W. Freer, Ill.; De Laskie Willon, Ill.; E. Andrews, Ill.; H. W. Jones, Ill.; Thos. Bevans, Ill.; J. Bloodgood, Ill.

On Prize Essays—Daniel Brainard, Ill.; D. L. McGuigan, Iowa; M. L. Leaton, Mo.: John Evan, Ill.; A. L. McArthur, Ill.

Committee on Publication.—F. G. Smith, Pa., Caspar Wister, Pa., S. C. Hubbard, Conn., R. J. Breckenridge, Ky., Edward Hartshorne, Pa., H. F. Askew, Del.

Vice President.—In the place of Dr. Logan, resigned, R. D. Arnold, Ga.

These officers were elected by acclamation.

Committee on Prize Essays reported they had received no essay, in their opinion, worthy of awarding a prize, which report was referred to the Committee on Publications.

The rules of order were suspended to bring up the third resolution of Dr. Davis, of Illinois, laid on the table yesterday.

The resolution was at length adopted under the following form :

Resolved, That all essays, voluntary communications and reports, except those of officers of the Association, reports of committees on medical education, medical literature and prize essays, shall be first presented to the Association and referred to the appropriate section, in which they shall be examined and dismissed ; after which they shall be returned to the secretary of the Association, accompanied by an expression of opinion as to whether they are worthy of publication or not, and the secretary shall pass all such designated to be worthy directly to the Committee on Publication ; and others not so designated shall be retained by the secretary or returned to their authors, as the latter may indicate.

Dr. Lewis A. Sayre, N. Y., was appointed a special Committee on Morbus Coxarius and Surgical Pathology of Articular Inflammation, read his report, which was confined to the first subject, giving an account of 72 cases, and the operations performed. Referred to the Surgical Sections.

Surgical Treatment of Strictures of the Urethra—James Bryan, Penn., reported progress and asked for longer time ; referred to its proper section.

Drainage and Sewerage of large cities, their Influence in Health—A. J. Semmes, Cornelius Boyle, G. M. Dove, D. C., reported progress and asked for longer time.

Puerperal Tetanus : its Statistics, Pathology and Treatment—D. L. McGuigan, Iowa ; report the same as above.

Hospital Epidemics—R. K. Smith, Penn.; laid over.

Puerperal Fever—S. N. Creen, Ind.; laid over.

Anæmia an Chlorosis—H P. Ayers, Ind.; reported progress and asked to continue the committee to report next year.

Veratrum Viride—J. B. McCaw, Va.; laid over.

Alcohol : its Therapeutical Effects—J. W. Dunbar, Md.; asked for a change in the title, making it read, "Alcohol in its relations to man ; granted. Report next year.

Meteorology—J. G. Westmoreland, Ga.; laid over.

Milk Sickness—Robt. Thompson, Ohio ; partial report made ; accepted and referred to section of Practical Medicine.

Manifestations of Disease of Nervous Centres—C. B. Chapman, Wisconsin ; laid over.

Microscopic Observations on Cancer Cells—Geo. N.

Norris, Alabama, chairman, asked to resign; committee discharged.

Philosophy of Practical Medicine—James Graham, Ohio; laid over.

On some of the Peculiarities of the North Pacific and their relations to climate—William H. Doughty, Georgia; absent.

On the Microscope—John C. Dalton, Jr., N. Y., David Hutchinson, Ind., A. R. Stout, Cal., Calvin Ellis, Mass., Christopher Johnson, Md.; report next year.

Diseases and Mortality of Boarding Schools—C. P. Mattingly, Ky., Dixi Crosby, N. H.; reported progress; referred to its proper section.

On Various Surgical Operations for Relief of Defective Vision—M. A. Pallen, Mo., T. J. Cogley, Ind., W. Hunt, Penn.; laid over.

On the Blood Corpuscle—W. Sager, Michigan; referred to proper section, with additional time.

American Medical Necrology—C. C. Cox, Md. Report was ordered to be read before the Convention, Thursday; amended to have Dr. Cox retained as chairman, and report next year.

Effects of the Virus of the Rattlesnake, when introduced in the System of Mammalia—A. S. Payne, Va.; reported progress and was discharged.

Constitutional Origin of Local Diseases, and the Local Origin of Constitutional Diseases—W. H. McKee, N. C.; C. F. Haywood, N. Y.; laid over.

Subcutaneous Injections as Remedials—I. Langer, Iowa; not allowed to report, not being an accepted delegate.

Quarantine—D. D. Clark, Pa.; E. M. Snow, R. I.; W. Jewell, Pa.; E, D. Fenner, La.; I. W. Houck, Md.; asked to be continued. Agreed to.

Medical Ethics—B. F. Schenck, Pa., chairman, resigned, and asked that Dr. Paul F. Eve, of Tennessee, be substituted; agreed to. Report next year.

Tracheotomy in Membranous Croup—A. N. Dougherty, N. J. Partial report: this was accepted and referred to the Surgical Section. Further time allowed to make out the report.

Effect of Perineal Operations for Urinary Calculi upon Procreation in the Male—J. S. White, Tenn. Letter from Dr. White, read; laid over.

Mercurial Fumigation in Syphilis—D. W. Yandell, Ky.; laid over.

Cause and Increase of Crime—W. C. Snead, Ky.; asked to be continued. Agreed to.

Education of Imbecile and Idiotic Children—H. P. Ayres, Ind. Report offered: referred to its proper section.

Pons Varolii—Partial report. The Committee wished to be continued: agreed to. Referred to Section on Anatomy.

The Committee on Voluntary Communications reported that they had received several communications on different subjects, which were referred to their appropriate sections.

Several reports and abstracts of reports on special subjects were presented, and referred to their appropriate sections.

One o'clock, the hour of adjournment, having arrived, a motion to continue five minutes longer prevailed. A little general business was then transacted, and the Convention adjourned.

There was no general meeting of the Association on the afternoon of the 6th inst., as by a resolution passed in the morning, the different sections to which special papers were referred met to discuss the particular subjects allotted to their consideration, the members of the Association distributing themselves, and visiting that section in whose deliberations they felt most interest. These sections met in different rooms, as follows:

Section on Anatomy and Physiology, in President Woolsey's Lecture Room.

Section on Surgery, in the Geological Cabinet.

Section on General Medicine, in the Geological Cabinet.

Section on Chemistry and Materia Medica, in the Laboratory.

Section on Meteorology, Medical Topography, Epidemic Diseases, Medical Jurisprudence and Hygiene, in the Laboratory.

(To be concluded in our next No.)

* * *

EDITORIAL AND MISCELLANEOUS.

American Medical Association.—On account of a press of original matter we can only furnish our readers one-half of the reports of the late proceedings of the American Medical Association. In our next issue we will complete the publication, and we propose to offer a few remarks in connection therewith. We are indebted to the pages of the Philadelphia Medical Reporter for this report, and must say it is the best ever issued. Still there is ample room for improvement.

QUACKERY RAMPANT.—We have recently seen a case in the hands of Dr. Beard, of this city, which exhibits in the most glaring manner the extraordinary credulity of man. The reader must know that in this city we have a wonderful "negro doctor," to whom the sick of high and low degree flock for relief. If ignorance ever was sublimated and concentrated, it is so in this miserable old African, and yet he is worshipped as an oracle by many who would be angry if we called them fools. The case we particularly allude to is one of double cataract in a highly respectable old planter. To look into his face is to diagnosticate his disease, so strikingly manifest is it. Yet during two long months has he been in the hands of this old negro, who day by day has been *blowing a powder into his eyes* (almost literally "throwing sand into his eyes") thereby complicating the case by irritating the conjunctiva. Yesterday Dr. B. operated on both eyes and to-day vision is quite distinct. There can be no doubt that in a few days he will be walking our streets without the aid of friends. His first visit ought to be to the old "negro doctor." He ought to behold the object on which he reposed such confidence.

Thus it is, from year's end to year's end, our city is infested with these miserable imposters ; though, thanks to Yellow Jack, few remain here during the summer. The winter before last "Dr. Ealing" cured (!!) the corns of our gentry to the tune of thousands, and last winter Dr. Don Muskwhiskers poked his fingers into their eyes and ears—to say nothing of his operations on their pockets. We earnestly hope they will both return in the fall. All the fools are not dead, and their presence is indispensable.

A New Medical Journal.—The New York Journal of Medicine published, and controlled, we understand, by Bailliere, of New York city, has been transformed into a weekly, and is now called the *American Medical Times.* No. 1 is now before us. It is full of New York hospital reports, clinical lectures, etc., and is well "gotten up." It certainly is the handsomest weekly in the country.

The Health of our City.—Up to the present date, June 25th, we have not heard of a case of yellow fever in the city, and for this reason our city papers are insisting that our community is one of the healthiest in the country. That we are free from yellow fever, is true; but that New Orleans is healthy, is untrue. Look at our weekly mortality report, and it will be seen that our mortality is twice as great as that of Boston, a city with perhaps more inhabitants. That there is comparatively little sickness amongst our adult population, is true; but even in this population we have far more sickness than there is in Boston. Amongst children—and more especially amongst the poor—there is a great deal of sickness, and the mortality is very high. Measles, pertussis, and cholera infantum are going hand in hand, and the poor are suffering. We hope to see an amelioration soon. For five weeks we have had no rain; in all the month of June we have not had enough to lay the dust before our door; and the poor are suffering for good water. We have had a hot sun, but a fine breeze has generally been stirring, and we must say that thus far the summer has been pleasant—barring the musquitoes (though many of them refuse to be *barred*), which are more numerous than we ever saw them in the middle of the city.

BOOKS AND PAMPHLETS RECEIVED.

"*An Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery; containing a condensed summary of the most interesting cases. etc., etc., etc. In six parts.* By WALTER S. WELLS, M. D. Vol. I. New York: Published for the Author by Charles T. Evans, 115 Nassau street. 1860."

Through the politeness of Mr. Samuel Colman, General Agent, South, No. 6 Camp street, we have received, from the publishers, this volume. We do not hesitate to pronounce it one of the most useful books ever issued from the medical press, and it should find its way to the desk of every practitioner who desires to "keep up with the times." The typography is good, though not the best, and the binding may well be imitated by other publishers. There is to be a second volume. Price of the two, $8. We sincerely trust that Dr. Wells will go on in the good work he is so capable of doing well. There are other valuable medical serials well worth epitomizing.

"*The Diseases of the Ear: their Nature, Diagnosis and Treatment:* By JOSEPH TOYNBEE, F. R. S., etc., etc. With one hundred engravings on wood. Philadelphia: Blanchard & Lea. 1860."

If there is a subject in medicine which requires special cultivation, it is that of diseases of the ear, and a real want is a systematic treatise on the subject. We have not time now to give the volume before us more than a cursory glance, and can only say that it seems to be a meritorious production. The author is well known in the specialty to which he has devoted himself. and his book will, no doubt, be sought after.

"*Lectures on the Diseases of Infancy and Childhood:* By CHARLES WEST, M. D., etc., etc., etc. Third American, from the fourth revised and enlarged London edition. Philadelphia: Blanchard & Lea. 1860."

We have before noticed Dr. West's work as the best in the English language. It is unnecessary to say more here, than that this is the best edition of the best work.

We are also in receipt of the following interesting pamphlets.

"*The Claims and Position of Physiology. An Anniversary Oration delivered before the South Carolina Medical Association.* February 1, 1860: By J. Dickson Bruns, A. M., M. D., etc."

"*Caffein as an Antidote in the Poisonous Narcotism of Opium:* By Henry Fraser Campbell, A. M., M. D., etc., etc.

Wanted!—Money from delinquent subscribers. All who will now pay up will receive our warmest thanks. We have thousands due us, and have not received $100 in one month. Are all our honest subscribers dead? If so, hand in your names, and we will write your obituaries.

EXCERPTA.

On The Harmlessness and Spontaneous Cure of Certain Polypi.—*By M. Velpeau.*—On the 14th of last November, a woman of good constitution, 40 years of age, came under the care of M. Velpeau on account of menorrhagia, moderately severe, and alternating with leucorrhœa. A practitioner previously consulted by the patient had recognized the existence of a thin uterine polypus, about an inch long and three or four lines thick, and presenting the appearance of the clapper of a bell. M. Velpeau supposing that this polypus had nothing to do with the discharges complained of by the patient, at first limited himself to prescribing astringent injections containing alum. Under this treatment the leucorrhœa sensibly diminished, and perhaps the same would have been the case with the menorrhagia; but as the patient was anxious to be relieved of the tumor, M. Velpeau proceeded to its extraction, which was effected in the simplest manner. The left index finger having been carried up to the neck of the uterus below the polypus, ordinary forceps were guided along the finger, seized the morbid growth, and withdrew it after two or three efforts of torsion. This little operation was performed on the 2d of December. On the 10th, M. Velpeau examined the cervix by means of the speculum, proposing to destroy the remainder of the pedicle with the acid nitrate of mercury; but neither examination by the eye nor by the finger could recognize the least trace of it. Cauterization was therefore judged unnecessary, and the patient was discharged with directions to continue the use of astringent injections.

In reference to the consecutive cauterization, M. Velpeau has remarked that this operation is not always necessary in the treatment of uterine polypi. It is indispensable when we have to do with vegetations of the mucous tissue; but when the polypus is implanted above the transverse diameter of the uterus, we may limit ourselves to cutting the tumor at the point of junction with the pedicle, or to enucleating it by a simple incision, without minding what shall become of the pedicle. For these latter polypi are veritable foreign bodies developed in the thickness of the uterine tissue, in which they have formed a sac; and this sac once emptied, the walls retract, without the patient being exposed to any danger from a relapse.

M. Velpeau took the opportunity of making some remarks upon the harmlessness and spontaneous cure of certain fibrous polypi of the uterus. The accidents produced by uterine polypi, are not, said the Professor, in relation with their volume. Some polypi of considerable size produce only a trifling discharge; nothing, however, is more common in private practice than false impressions on this point. Thus there is no opinion more common in society, and even among the medical profession, than that which regards a polypus of the uterus as a very serious affection, and imperatively requiring surgical interference. Nevertheless, there are many polypi which do not at all affect the general health, and which even disappear spontaneously. Sometimes the pedicle gradually becomes thinner, and breaks in consequence of some displacement of the uterus, and the polypus drops off like a ripe fruit; other times softening and grangrenous destruction of the morbid growth take place. Accordingly, if you are called in, and finding a polypus of the size of a chesnut, you recommend its removal, at the same time describing and exaggerating the evils it might occasion; in general your advice will be followed, and all will go on well. But, on the contrary, it may happen that your advice is not followed; and then, as the polypus may give rise to no bad effects, you will be looked upon as an ignoramus, or it will be supposed that you were influenced by interested motives. As these cases are not rare, it may be well to call to them the attention of practitioners:

Six years ago, M. Velpeau was consulted by a lady on account of ill-defined sensations in the lower part of the belly. He examined her, and found a pyriform polypus of the size of a walnut. He recommended the patient to submit to an operation, and pointed out to her the danger which the presence of the polypus might occasion. She consented, and the day for the operation was fixed ; but when M. Velpeau arrived, he learned that his patient had yielded to a sudden impulse of terror, and that she was gone. But this lady returned a year afterwards, and the polypus in the interval had occasioned no unpleasant effects. Nevertheless, M. Velpeau still insisted upon the necessity of an operation, but without success. Three years elapsed, and at the end of that time the polypus had undergone a notable diminution. Now it is reduced to a small tubercle, and for the last six years has been perfectly inoffensive.

M. Velpeau also quoted the case of a lady in Paris, in whom fifteen years ago he had recognized the presence of a uterine polypus, which appeared to occasion abundant hæmorrhage at the menstrual periods. The patient was at first disposed to be operated upon, but subsequently drew back ; and at the end of three or four years there was neither hæmorrhage nor polypus. Indeed, M. Velpeau is not quite certain that these polypi are always the cause of the red or white discharges, which are supposed to depend upon them ; and it is on this account that, in the case of the woman who had been the occasion for these remarks, M. Velpeau had only been led to operate by her own strongly expressed wish.—*Journal de Médecine et de Chirurgie Pratiques.*

SALT IN THE TREATMENT OF MUGUET.—Dr. Flugtel has treated the muguet in infants with advantage during several years by means of a solution of kitchen-salt. As soon as the affection appears he washes the mouth several days with a solution, dissolving as much salt as will lie on the point of an ordinary knife in a tablespoonful of water.—*Rev. Méd.*, March, p. 305.

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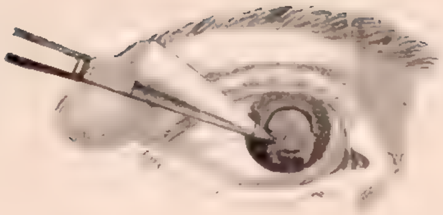

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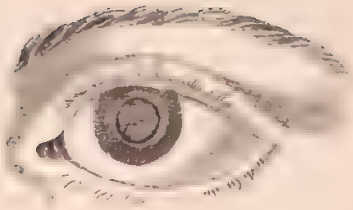

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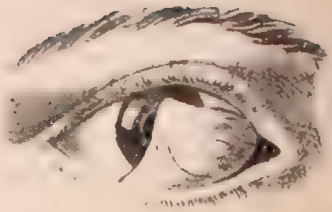

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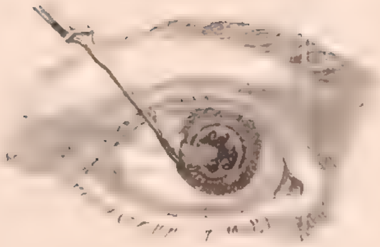

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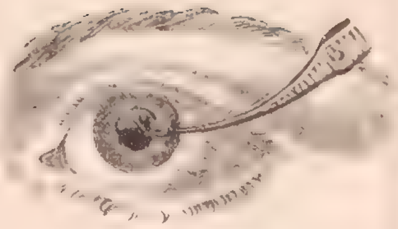

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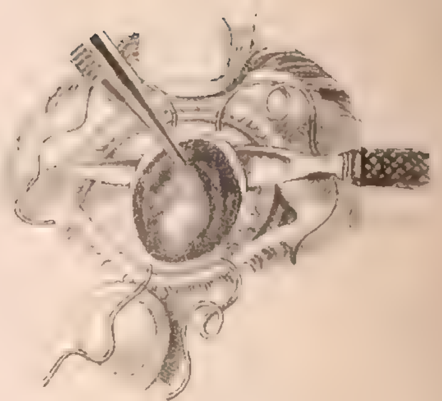

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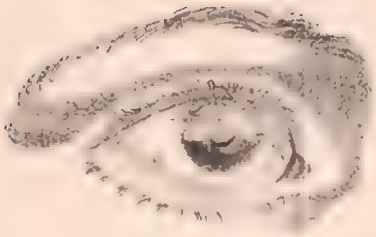

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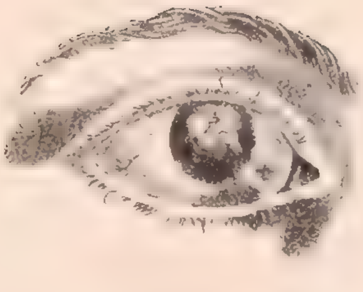

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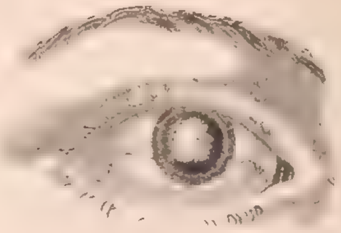

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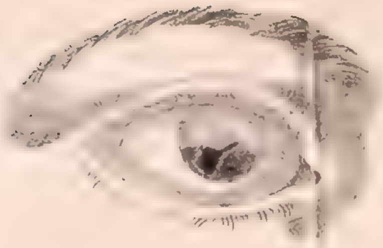

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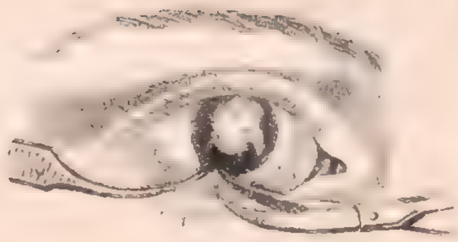

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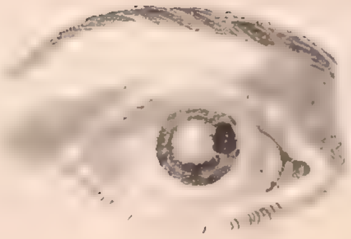

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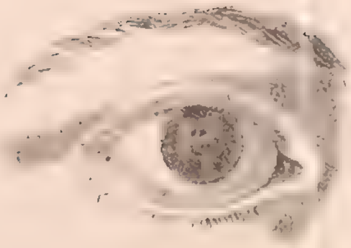

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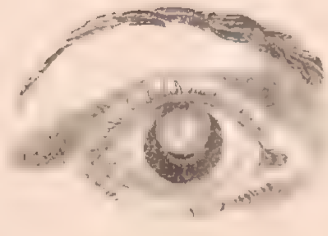

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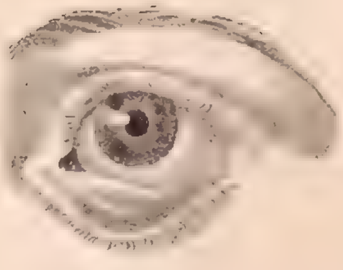

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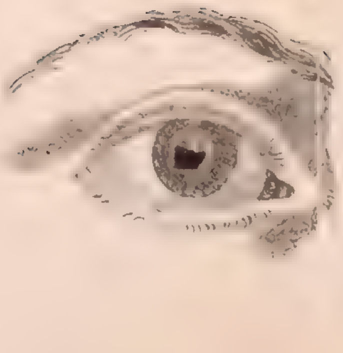

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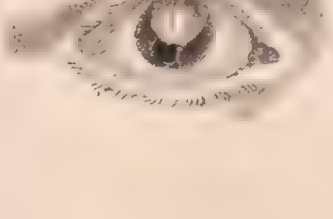

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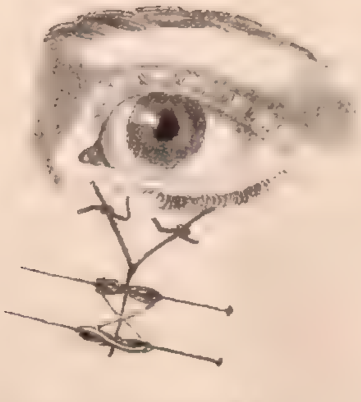

NEW ORLEANS

Medical News and Hospital Gazette.

VOL. VII. AUGUST, 1860. NO. 6.

OPERATIONS ON THE EYE,

WITH ILLUSTRATIONS.

By Dr. C. Beard, Prof. of Principles of Surgery N. O. School of Medicine.

The following cases have been mostly observed in private hospital practice. They are selected from a large number, of which record has been faithfully kept by Dr. Wm. S. Mitchell, my assistant, and presenting interesting features, are published with the hope that they may be somewhat instructive, while, at the same time, they furnish a quota to ophthalmic statistics The cases have been observed during the past six months. The accompanying lithographic table is made from drawings after nature, by Mr. Augustus Dauphin, medical student, and, although it falls short in excellence of the highly colored originals, is sufficiently correct to give a good general idea of the case, and the result of operation.

Case 1*st*, *Figs.* 1 *and* 4.—*H. M. S., Engineer, æt.* 48, *from Algiers, La., soft, lenticular cataract, both eyes.*—Patient states that his eyes began to fail about a year ago ; during that time, having been considerably exposed, he was subject to slight attacks of conjunctival inflammation. His vision gradually diminished, until, at the time of operation, it was only sufficient to distinguish the outlines of large objects. Vision of the left eye somewhat more impaired than that of the right; eyes present a natural appearance, with the exception of the opaque lenses. The pupils are dilatable. Patient's general condition good.

After having been purged, and the pupils well dilated, patient was operated upon, January 18th, by reclination, through the sclerotic, a broad-pointed, short cataract-needle being used. The reclination was only partial, the nuclear portion of the cataract alone being depressed; the remainder, together with the anterior capsule, was thoroughly broken up, a small portion passing through the pupil into the anterior chamber. Patient remained in bed three days, during which iced applications, with constant instillations of atropine solution, were freely used. Upon the removal of the bandages on the third day, the central portion of the lens, which had been depressed, was seen, through the turbid aqueous humor, to occupy a position immediately behind the iris, resting partially upon the lower margin of the pupil. No inflammation ensued.

On the 23d, an operation was made through the cornea, for depression of the central portion of the cataract, which had risen after the first operation. The needle used was exceedingly delicate, not larger than a cambric needle. No inflammatory symptoms were observed; the portion of cataract depressed remained in the position in which it had been placed, and three weeks sufficed for the complete removal, by absorption, of the cortical portion, which had previously been broken up. Patient's vision as good as is usual in cases in which the lens has been removed.

It might be urged that a secondary operation in this case was unnecessary; that, had the eye not been touched again, absorption of the nuclear portion of the cataract would have eventually taken place, and the cure have been thus effected. I think, however, that the operation was indicated from the following reasons: Being made through the cornea with a delicate needle, it subjected the patient to comparatively little danger from traumatic inflammation; the depression of the remainder of the opaque lens was evidently easy of execution; its presence, lodged, as it was, upon the lower margin of the pupil, was likely to excite inflammation; there was danger of its passage through the pupil into the anterior chamber, from any violent movement of the patient, an accident which is always of a more or less serious character: and, lastly, the time gained by the patient was a matter of consideration to him.

On the 5th March, the right eye, to which the figures have reference, was operated upon, through the sclerotic, for solution, with a narrow-pointed cataract-needle. The opaque lens, much softer than the first, together with its capsule, was thoroughly broken up, a portion passing through the pupil into the anterior chamber (see fig. 1). The patient was treated as in the first case, but on the second day considerable inflammation ensued, accompanied with swelling of the conjunctiva (more particularly at the point of entrance of the needle), with some pain and photophobia. Active purgation, together with a few leeches to the outer angle of the lids, relieved this condition in a day or two, and the eye could bear the light at the end of a week. At this time, upon examination, it presented the following appearances: The cornea and conjunctiva natural; iris pressed forward into the anterior chamber, presenting considerable convexity, but no discoloration or other marks of disease; pupil, although dilated, somewhat irregular, but, as far as could be seen, not adherent.

The case was abandoned to absorption for a few weeks, at the end of which no perceptible change had taken place in the condition of things.

It may not be improper to remark, in this connection, that, as far as my experience extends, absorption is exceedingly slow in cases presenting the condition which resulted from this operation. I have observed, in several instances, that, where the *débris* of the ruptured lens are pressed against the posterior surface of the iris, either in consequence of their not having been sufficiently disseminated, or from their enlargement from imbibition of the aqueous humor, absorption is very slow and the eye more subject to inflammation than in other cases, in which *broiement* has been made; furthermore, the case is usually troublesome, and requires two or more operations with the needle, each, of course, subjecting the patient to a risk of inflammation, with its final sequelæ of softening of the vitrous humor and disorganization. I, therefore, determined, in this case, to strike at its foundation, and remove the unabsorbed lens by linear extraction; this was performed in the following manner: The patient being in a semi-reclining position, a Beer's cataract-knife was passed perpendicularly to the plane of the cornea, at a point corresponding to the outer margin of the dilated pupil (fig. 1), the point of the knife being pressed sufficiently deep to make an incision two lines in length. The curette was then introduced through the incision, the convex portion resting on its outer lip; very slight pressure upon the globe sufficed to force out the ruptured lens (fig. 4), nearly the whole being removed. A large space of black pupil was the result. Care was taken that no particle of the cataract should remain between the lips of the wound, on withdrawal of the curette. The patient's eye was closed with isinglass plaster, iced applications were made, and atropine used for three days, during which time no inflammatory symptoms occurred.

Upon opening the eye, union, without perceptible cicatrix, was perfect ; patient's vision good. Since that time, the pupil having contracted in such a manner as to conceal the ragged periphery of the capsule, the organ presents a perfectly natural appearance. Sight as good as in the left eye.

The chief point of interest in this case, as far as regards the right eye, is the rapidity in which a cure was effected, under circumstances which, if the needle alone had been used, would have required months for its performance, to say nothing of the dangers incurred from second, third, or even fourth operations, which are sometimes necessary before the complete removal of the soft cataract by absorption.

I think it to be a settled question that wounds of the cornea, whether incised or punctured, heal more readily, and give rise to less disturbance, either functional or organic, of the globe, than those of the sclerotic, and am resolved, hereafter, in all cases of soft cataract in which absorption does not very rapidly take place, after a first operation for solution, to remove the disorganized lens by the method practiced in this case. If I am thought hasty in this conclusion, as to the value of linear extraction under such circumstances, I can cite four or five instances in which I have, by this method, successfully removed soft cataracts of traumatic origin.

Case 2d, Figs. 2 and 5.—A. H., Planter, æt. 40, *from Huntsville, Texas, Secondary Capsular Cataract.*—Patient had double congenital cataract, and was operated upon on both eyes, fifteen years ago, by Dr. Ben. Dudley, of Lexington, Ky. The patient states that, prior to this operation, he was totally blind in left eye, but possessed sufficient sight in right eye to conduct himself. After the operation, the right eye, which was the useful organ before the operation, became almost entirely blind, and the little vision he had was in the left.

At the time I saw the patient, his eyes presented the following appearances: Nystagmus of both eyes, or impossibility of fixing an object; this, as is well known, is usual in cases of congenital cataract, in which the operation has been too long deferred. The cornea and anterior chamber in each eye present a natural appearance, with the exception that in the right eye the pupil is somewhat irregular, and the iris slightly infudibuliform, as is frequently the case in secondary capsular cataract, with adhesion. Both pupils present the appearance of fine network upon a black ground (fig. 2), the opacity in the right being more marked and the capsule apparently more dense than in the left. The pupils responded but slightly to the influence of atropine. The patient's vision was such as to permit him to conduct himself tolerably well, with the aid of a walking-cane.

My experience in such cases has been, that the dense, opaque capsule, which sometimes results after a partially successful operation for cataract, is exceedingly difficult to remove by the needle, and it is to overcome this difficulty that Bowman, of London, has advised the use of two needles, which, being introduced into the cornea, one may serve as a *point d'appui*, while the other is used for lacerating the opacity. I had tried this in two instances, with rather an unsatisfactory result; but, notwithstanding this, I flattered myself that I could remove the capsule, in the case of A. H., with one needle introduced through the cornea. This was tried in the left eye, but without success. The opaque capsule was found to be so dense and resistant, that traction upon it with the needle endangered a separation of the iris, to which it was adherent, from its ciliary connection, and the operation was abandoned, as being unsuited to the case, and without any good result. No reaction followed.

A few days subsequent to this unsuccessful attempt, I determined to remove the opacity by linear extraction, through the cornea. An incision was made with a cataract-knife, similar to that in right eye of H. M. S. (case reported above, fig. 1). A very fine pair of iris-forceps were then introduced through the cut, and the opacity removed piece-meal and at my leisure (fig. 5). Only a small quantity of the aqueous humor was discharged. The operation was not painful and vision was immediately improved. The case was treated as in the above-cited instance of linear extraction. No reaction followed, and in six or eight days the patient, with the use of a double-convex glass, could see fine print. There was no perceptible cicatrix in the cornea.

The patient's business requiring his presence home, an operation on the other eye was deferred to a subsequent period.

This is the third instance in which I had made an opening in the cornea, for the removal of a pure, capsular cataract by the forceps; in one of traumatic origin, caused by a blow with a riding switch, (operated upon during the past winter), the lens having been absorbed, notwithstanding the existence of considerable subacute inflammation, the opening was made in the cornea, and the capsule removed, with a completely satisfactory result; the inflammatory symptoms subsiding as soon as the corneal section had healed.

Case 3d, Figs. 7 *and* 10.—*A. S., Tailor, æt.* 47, *from Sacramento City, California. Partial Opacity of the Cornea (albugo) of right eye. Almost complete Opacity of left eye.*—Patient states that he has been subject to inflammation of his eyes for several years, which finally incapacitated him in performing his ordinary labor.

Patient entered the Infirmary April 1st. On examination, his eyelids presented internally that peculiar cicatrized condition, which remains after the removal of granulations by the use of long-continued and frequently-applied escharotics. The upper two-thirds of the right cornea is almost completely white, from interstitial deposit; the opacity, somewhat irregular at its lower portion, terminates abruptly at a point corresponding with the lower margin of the pupil, a very thin, crescentic portion of which is visible in moderate light. The opacity is somewhat vascular; the vessels, however, do not impinge on the transparent portion of the cornea (see fig. 7). The patient is almost entirely blind, when exposed to a bright light, in consequence of the contraction of the pupil within the opacity; when in a moderate light, he can see well enough to conduct himself, and even discern small objects.

The patient was operated upon a few days after his entrance into my Infirmary, for artificial pupil, by ectomy, in the following manner: Being placed in a reclining position, in a good light, and the eyelids separated by an assistant, a sharp-pointed cataract-knife was passed through the cornea at its lower portion, near to its junction with the sclerotic. The iris-forceps were then introduced, the iris seized, and a portion withdrawn, which was nipped off with the scissors, by an assistant (as in fig. 11). Iced applications and the recumbent position persisted in for a few days, prevented any inflammatory symptoms.

On examination of the eye, it was found that the pupil made was too small, and that a very narrow bridge of iris existed between the natural and the artificial opening. This condition of things was remedied by a subsequent operation, ten days after the first, performed pretty much in the same manner, and resulting in the condition delineated in figure 10. No inflammation followed the second operation.

The patient's vision, although not much improved for the observation of small objects, was much better and more useful than before the operation, inasmuch as he could see in a bright as well as in a moderate light, and, in fine, was in a position to earn his bread by ordinary manual labor. The pupil being well placed and of a proper size and shape, it is to be regretted that vision was not more acute in this, as is usual in similar cases. This may be, perhaps, attributable to some defect in the sensitive apparatus of the globe, the result, probably, of the repeated inflammations and indiscriminate treatment to which he had been subjected.

It was not thought best to touch the left eye.

Case 4th, Figs. 8 *and* 11.—*A. H. B., Farmer, æt.* 29, *from Texas. Double Leucoma, with anterior Synechia.*—Patient states that he first experienced some little inconvenience in his eyes on the 23d of last October. This condition increased to one of inflammation, attended with abundant discharge of matter, and two days afterwards he was completely blind. He had much inflammation and pain for a month, which gradually diminished under an antiphlogistic treatment, with applications of nitrate of silver, so that, by December 1st, he could expose his eyes to light without the intense pain which it had previously induced.

Patient's statement of his case is very unsatisfactory. Inasmuch as there existed, at the time he became affected, no epidemic purulent ophthalmia in the neighborhood from which he came, and, judging from the rapidly destructive inflammation of which he had been the subject, I am induced to believe that his disease was the result of an indulgence in forbidden and unclean flesh, in other words, that it was of a virulent blennorrhagic character. I, however, made no very searching inquiries, as nothing which might prove beneficial to the case could have been thereby elicited.

His eyes presented the following appearances, and the description of one will answer well for both: There was no sign of existing inflammation in the globe or lids. The central portion of the cornea was completely leucomatous and much more convex than in the natural condition, the opacity being so large as to leave a margin of transparent cornea not more than one-eighth of an inch, the largest part being at the lower portion (fig. 8). The pupillary margin of the iris was evidently closely adherent to the posterior portion of the opacity, and the iris itself consequently pressed forward, enlarging the posterior at the expense of the anterior chamber, so that but a thin layer of the aqueous humor separated it from the posterior surface of the cornea. The patient could barely distinguish light from darkness. This condition of things had evidently been the result of violent inflammation, terminating in sloughing of the cornea at its central portion, with perforation, prolapsus of the pupillary margin of the iris, subsequent agglutination of the same with a cicatricial tissue, which nature provided for the closure of the opening.

The case was one which did not admit of a favorable prognosis; it could not be known whether or not the capsule of the lens or the lens itself was implicated in the inflammatory process. It might well be supposed, under the circumstances described, and as is not unfrequently observed, that the choroid and retina had suffered. There was, however, but one thing to be done, and that was to form an opening in the iris, through which the rays of light might enter the eye. Ectomy was therefore performed, in the manner described in the last case, both eyes being operated upon *séance tenante.* The patient was treated as is usual. Some inflammatory symptoms ensued in left eye, which were successfully combated by the ordinary antiphlogistic remedies. Recovery from the effects of the operation was complete in less than two weeks, and the patient's vision such that, with either eye, he could see well enough to conduct himself, recognize the hands of a watch, or the faces of those around him. He was discharged after remaining in the infirmary about three weeks. I have but little doubt that his vision has since improved.

Case 5th, Figs. 14 *and* 17.—*Jerry, slave, æt.* 26. *Partial Staphyloma of each eye.*—Patient had been affected for a number of years with granular disease of the eyelids, which had resisted a variety of treatment. During this time he suffered much pain from photophobia, and, for a considerable period, was rendered totally unfit for labor.

He entered the Infirmary January 19th. On examination, his eyes presented the following appearances: The upper eyelids covered with large fleshy granulations, larger and more marked in the right than in the left eye. When closed, the upper lids presented at their centers a well-marked conical protuberance. This was due to two peculiarly situated staphylomata, the position of which in each eye was almost identical. The sclerotic, at its upper and anterior part, was slightly implicated in each eye. The staphylomatous tumors themselves were half the size of a pea, and similar to it in shape. The iris was implicated to a greater extent in the right than in the left eye; in fact, although the anterior chamber of the left eye had become exceedingly shallow, in consequence of anterior synechia, the pupil was sufficient to admit of the entrance of abundance of light, and, though rigid and oblong in shape, performed its functions sufficiently well to admit of good vision. In the right eye but a very small portion of the pupil remained unobliterated, the iris having been dragged up and consolidated in the staphylomatous tumor in such a manner as to leave but a hair's breadth of black pupil (as seen in fig. 14), when the patient was in obscure light.

The treatment of the patient was directed especially to the relief of the granular condition of the eyelids; this was accomplished by the careful application of the solution of nitrate of silver (gr. xx to ℥j) every second day, and a general treatment calculated to improve the tone of the system. When the eyes had recovered entirely from the granular disease, I thought it might be well to enlarge the natural opening in the iris, and restore vision to the right eye. With this end in view, I operated as in the case of A. H. B. (Case 6th, fig. 11), last reported, making an opening in the inferior portion of the cornea, and withdrawing a portion of iris, which, being snipped off, left a pupil, the center of which corresponded almost exactly with the center of the pupil of the other eye.

Vision in this eye, after the operation, became almost as perfect as in the other. There was no diplopia, and the eyes, to all appearances, functioned equally.

The cause of the staphylomata in this patient was identical in each eye, and although I did not watch its progress, I suppose it probable that the constant irritation of the granular lids finally produced inflammation of the cornea, with ulceration to perforation; consequent prolapsus of the iris took place. The irritation continuing, the ulcerative process was kept up for a time. Cornea became softer at a point near the edge of the prolapsus, which consequently distended it. The reparative process finally intervening to check the progress of ulceration, the prolapsed iris became blended with the cicatricial tissue formed by nature to check its further exit.

Case 6th, Figs. 9 and 12.—Spencer, slave, æt. 47. Central Opacity of right Cornea.—Patient states that, about eighteen months ago, his right eye became affected. He suffered much pain, constant photophobia and lachrymation; sight in this eye gradually diminished, until it was almost totally abolished.

Patient was admitted to the Infirmary May 3rd. On examination, cornea presented well-marked central leucoma, situated in such a manner as to leave a larger space of transparent tissue internally than externally (fig. 9). The patient's left eye being somewhat defective from slight posterior capsular opacity, it was determined to practice an artificial pupil in the right eye, for fear that the disease of the left should progress to blindness. This was done by ectomy, in the manner already described, with a perfectly satisfactory result (fig. 12), patient being able to see remarkably well with his new pupil.

Case 7th, Figs. 13 *and* 16.—*Jim, slave, æt. about* 25. *Partial Occlusion of both Pupils. Central Capsular Cataract, with Adhesion.*—Patient states that he had the small-pox about a year ago, from the marks, evidently of a confluent form. During the disease his eyes became affected; he suffered much from them. Gradually recovering from the inflammation, he found himself almost blind.

He entered the Infirmary December 29, when his eyes presented the following appearances: Pupils contracted to the size of a pin's head; their margins adherent, almost entirely, to the central opaque capsule, and iris somewhat infundibuliform (fig. 13). The eyes presented otherwise a natural appearance. Vision only sufficient to conduct himself.

An artificial pupil was practiced first upon the left eye, on the external portion of the iris, by ectomy, which resulted favorably, patient's vision being sufficiently good to perform ordinary labor. The pupil, however, occupying the external portion of the iris, I determined, although contrary to the rule after a first operation has been successful, to operate upon the right eye, thinking I could establish a pupil, which, being more central, would at the same time be more effective. The attempt was accordingly made, some ten or fifteen days after the first operation, with the result indicated in figure 16, in which it will be seen that a small portion of the outer pupillary margin was removed, leaving a pupil which, although somewhat irregular, was still situated at a position admirably adapted for correct vision. Patient's sight in this eye may be cited as being almost perfect.

Case 8th, Fig. 3.—*Isham, slave, æt.* 50, *Pterygium.*—A drawing of this case was made from the fact of its presenting characteristics which are not usual. The extent of the pterygium was much greater than I had ever before observed, its base reaching from the upper portion of the plica semilunaris to beyond the center of the inferior oculo-palpebral fold of the conjunctiva, while its apex was attached to the cornea at the upper fifth of its vertical diameter. It was exceedingly thick, fleshy, hard and vascular, and seemed to interfere, to a considerable extent, with abduction of the globe. It obscured four-fifths of the pupil, and nearly the whole of it when the eye was turned to a bright light. I regret that no accurate history of its origin could be obtained from the patient.

An operation was performed for its removal, by seizing the apex at its attachment to the cornea with a pair of stout tooth-forceps, while it was dissected to its base with a round-pointed, sharp bistouri, the operation being completed with the curved scissors. There was, of course, a large, raw surface exposed, which, however, rapidly healed up, without any untoward inflammatory symptoms. The *débris*, which remained upon the cornea, gradually disappeared, by a species of suppurative process, leaving that tissue in a semi-transparent condition, which will probably improve with time.

Case 9th, Fig. 6.—*Th. B., æt.* 10, *from Avoyelles parish, La. Sclerotic Choroideal Staphyloma.*—Patient had wounded himself with a knife when three or four years of age. Severe inflammation of the cornea, sclerotic and choroid ensued, with their gradual disorganization.

At the time that I saw him, the anterior portion of the globe was largely distended, presenting a bluish, cicatrized appearance, and interfering seriously with the closure of the lids, while, at the same time, the condition gave rise to a very unpleasant deformity. The patient, moreover, had been lately subject to attacks of pain in the globe, of a neuralgic character, due, probably, to distension.

To relieve this condition, the following operation was performed: The patient being under the influence of chloroform, a large curved needle, armed with a ligature, was twice passed through the anterior portion of the globe, the point of entrance and exit of the needle being regulated by the position of the edges of the eyelids, when widely drawn apart. A sufficient discharge of fluid took place through the openings made by the needle, to render the globe somewhat flaccid. Its anterior part was seized with a pair of stout tooth-forceps, while, with a sharp-pointed bistouri, the whole of that portion of the globe, anterior to the ligatures, was quickly removed (fig. 6). The gaping edges of the wound were then brought together by the sutures, the eye closed, patient removed to bed, and iced applications made. No pain nor serious inflammation followed the operation, and union was complete when the sutures were removed on the sixth day. The patient had a well-formed, moveable stump, upon which, when all conjunctival inflammation ceased, an artificial eye was adapted, with a highly satisfactory result.

The advantage of using sutures, as in the method adopted in this case, is, first, that the quantity of vitreous humor, which it is desired to leave in the globe, can be much better regulated, and, second, the cure is much more rapid than when the opening is allowed to contract down and fill up, as in the process usual in the reparation of lost tissue.

Case 10*th, Figs.* 15 *and* 18.—*R. G. J., Planter, æt.* 40, *from Mississippi. Ectropion, left eye.*—The subject of this case was so unfortunate as to fall into a fire, while in a fit. He was horribly burnt, and, among other deformities which resulted, is the retraction and eversion represented in figure 15.

He applied to me for relief, and the following operation (*Sanson's*) was performed: An incision was made, extending from the outer third of the lower eyelid, obliquely inwards, towards the ala of the nose, and terminating about two lines above it; another incision, meeting this at an acute angle, extended downwards, from near the inner canthus. The V-shaped flap was dissected up completely to the lower edge of the tarsal cartilage, care being taken to include in it as much as possible of the subcutaneous cellular tissue. This procedure permitted the lid to be replaced in the normal position, the flap being slided up. Two suture-pins were passed through the skin at the lower portion of the space left by the sliding up of the flap, to which the twisted suture was applied. These, together with a couple of interrupted sutures, brought the divided surface together in such a manner as to leave a Y-shaped incision. The sutures were removed on the third day, immediate union having taken place, with the exception of a small portion of the angle of the flap, which healed by granulation. The patient left with the result indicated in figure 18.

The two following cases, although not represented in the lithographic table, present several points of interest which make them worthy of record :

Case 11*th.*—*M. McN., Planter, æt.* 58, *from Amite county, Mississippi. Semi-hard Lenticular Cataract, complete, of right eye. Commencing Opacity of Lens of left eye.*—The following is a brief account of this case : About twenty-five years ago, while driving a nail into an axeltree, a fragment of iron struck him in the right eye, remaining there for two days, and causing a severe inflammation He dates the beginning of his defective vision from this period. In 1854, he struck himself horizontally over the left eye, with a piece of a hickory stick ; both eyes became much inflamed, and, from this time, his right began to fail ; patient could, however, superintend his plantation, until two years ago, at which time he could not recognize his children one from another. The patient is a large, powerful man, of excellent general health, and has never been subjected to any disease whatever, with the exception of occasional slight attacks of rheumatism.

Patient entered the Infirmary April 5th, at which time the following appearances were noted : The left eye presented a general healthy condition, with the exception of well-marked lenticular cataract of a bluish-white color ; the iris quite moveable, responding readily to the influence of atropine. The affection presenting nearly all the characteristics of completely soft cataract, it was determined to operate for solution through the sclerotic, with a delicate needle.

April 8th, the patient having been properly prepared and placed in a sitting posture, the needle was introduced in the usual manner, passed forward between the posterior surface of the iris and the lens, until it was seen through the pupil, and the capsule and anterior portion of the lens were thoroughly broken up with its curved point. On pressing the needle backwards, it became evident that the central portion of the cataract was much harder than had been supposed, and the operation was continued with the view to its depression out of the line of vision ; at this time, and before the nucleus had completely disappeared from behind the pupil, patient was seized with the most violent efforts to vomit, and, notwithstanding the strongest exertion of will on his part, and the efforts of the assistants, the convulsive movements of his eye and body were such as to render it imperative to discontinue the operation. The needle was, therefore, withdrawn from the eye, without knowing exactly what had been accomplished. Patient was placed in bed, his eyes properly bandaged, and iced applications used. Although he complained of no pain, either during the operation or subsequent to it, nausea, with tendency to vomiting, and even vomiting, continued for six or eight hours, notwithstanding the usual remedies in such cases. These symptoms gradually subsided, no inflammation ensuing, and the patient was up and about his room in four or five days. The eye, being examined at this time, presented the following appearances : Cornea, conjunctiva and sclerotic looked natural, with the exception of a slight congestion; the anterior chamber contained a considerable quantity of the softer portion of the disintegrated lens, principally in one large mass, at its lower portion. The harder portion of the lens was capsized, so that its anterior part looked upwards and its lower edge forwards ; this projected slightly into the anterior chamber, resting upon the lower margin of the pupil. The pupil was widely dilated, and its upper portion presented a large, irregular, black space, festooned with a ragged border of capsule, through which the patient already saw moderately well.

Patient remained in the Infirmary about two weeks after the operation, during which time absorption of the softer portion of the lens went on rapidly, and the nuclear portion also seemed to diminish in size; this, however, did not change its position. There being no tendency to inflammation, and patient's sight being sufficiently good, with the aid of glasses, for ordinary purposes, he was permitted to return home, with some general instructions as to his own management, being more particularly cautioned, if anything extraordinary occurred to his eye, to return immediately to the city. He was to return in three weeks, to show how his case progressed, although it was thought, at the time of his departure, that the nuclear portion of the cataract would be probably absorbed, without giving rise to further trouble.

At the expiration of this time, patient did return, with his sight much worse than when he left. He stated that, two days previously, his chair slipped, while seated in a leaning position, and he fell heavily to the ground; sight became immediately impaired. The cause of this was evident upon examination, and was due partially to the the pupil's being somewhat smaller than when he left, but principally to the fact that the unabsorbed portion of the lens had been driven forward through the pupil in a slanting direction, so that its lower portion, formerly resting on the margin of the pupil, was now directed upwards and its posterior surface forwards; in other words, the operation and the fall together had turned the opacity almost completely upon its own axis. Nearly two-thirds of it occupied the anterior chamber. The eye presented some considerable degree of congestion; there was, however, no pain, and light produced but little uneasiness.

It became a question what would be best to do, under these circumstances? I had but little doubt that, with proper management, the lens would be ultimately absorbed, if allowed to remain in its new position; but this process would necessarily be long and tedious. An operation by extraction through the cornea was contraindicated, for the reason that the posterior capsule and hyaloid had been more or less disturbed in the first operation, and loss of the vitreous humor might be expected, while any recurrence of the symptoms of vomiting, noted during the first operation, would be likely to produce a similar result. I determined, therefore, to endeavor to bring back the lens behind the iris, and depress it. With this end in view, I selected a very fine needle, well-curved at the point, which I passed through the sclerotic, a little lower than where the puncture is usually made, carrying it between the outer margin of the opacity and the iris, through the pupil, and into the anterior chamber. The point was then engaged in the opacity, which was pressed backwards and downwards, until it had nearly disappeared from view. At this period of the operation the symptoms of retching and vomiting again occurred, but I was fortunate enough to complete it to my satisfaction before the struggles of the patient forced me to remove the needle from the eye. Very little reaction followed. Four days afterwards, on examination, the pupil presented an almost natural appearance, being only slightly irregular at its lower portion, upon which the hard part of the cataract had once rested.

Vision, two weeks after the operation, was sufficiently good to permit of reading ordinary type.

The chief points of interest in this case are, first, the vomiting which ensued during each operation, and this is the more remarkable, from the fact that the patient appeared to be as little impressible as any one that could have been picked out. He was a strong, hardy man, perfectly indifferent to the prospect of pain, and had never been subject to symptoms similar to these, upon any previous occasion. Nausea and vomiting are mentioned, by most writers on the eye, as sometimes complicating this operation, but this is the first time, in certainly over two hundred cases of cataract which I have operated upon, that I have observed either. Another point of interest is the position occupied by the nucleus of the lens, first resting on the margin of the pupil, then, in consequence of the fall, being driven, as described, almost entirely into the anterior chamber; and, lastly, the almost total absence of any marked inflammatory symptom from this anomalous position of the lens, is something rarely observed.

Case 12*th.—J. B. C., Planter, St. James parish, La., æt* 70. *Soft Lenticular Cataract, both eyes, complete.*—Patient's vision commenced to fail about eight years ago; can ascribe it to no accident or injury. General health has been always good; was able to attend to his business up to within the last two years, when he became so blind as to be unable to conduct himself. Patient came to the city two months ago, and placed himself under the treatment of a negro spiritualist, *Congo John*, who figuratively and literally threw dust in his eyes, up to the time of my seeing him. His treatment consisted in blowing some sort of powder between the lids, with a quill, in order, as he said, to take off the skin, which prevented him from seeing. The result of this method was the production of a considerable degree of conjunctival inflammation, of which he suffered a little when I first saw him.

He entered my Infirmary June 23d. His eyes presented the following appearance: Palpebral and bulbular conjunctivæ somewat inflamed, with slight mucous discharge; globes of the natural tension on pressure; pupils presented well-marked, whitish, mother-of-pearl-like opacities, indicative of the softer variety of cataract. The pupils did not respond to the action of light in the slightest degree, neither were they affected at all by a free use of strong solution of atropine. The condition could not be called one of myosis, as the diameter of the pupils was about that which is usual when the eye is exposed to a moderate light. It became a question as to what this condition was due; was it owing to pressure upon the posterior surface of the iris from the enlarged and softened lens? was it due to rigidity of the circular fibres of the iris, induced by the treatment he had undergone? or was it a condition natural to the patient, and which had always existed? We know that the depth of the posterior chamber is almost immeasurably small; so small that its existence has been and is yet denied. It was thought, then, not impossible that the lens, in this instance larger than is usual, even in soft cataracts, might have pressed, as suggested, against the iris, near its pupillary margin, and thus have induced the rigidity. That it was not due to adhesions, was almost conclusively proved by the fact that there was no irregularity of the pupil whatever, none of that infundibuliform appearance of the iris usual in such cases, and, lastly, the patient, from his statement, had never been subject to any inflammation of his eyes. If it had been caused by congestion of the iris, from his previous treatment, the symptom should have disappeared under proper management; but it did not, and I am led to the opinion that the condition was a congenital one, or, at least, one of long standing, from the fact that it persisted after the entire removal of the cataract by the needle, and, consequently, of any pressure of the lens against the iris.

Patient was operated upon June 24th, with the needle, on both eyes, in the sitting posture. There was, of course, some difficulty experienced in passing the point of the needle forward, so as to be seen in the pupil, in consequence of the condition of the iris, and it became entangled in the capsule of the lens in each case. This, however, did not prevent the complete depression of by far the larger portion of each cataract, with a completely satisfactory result. The pupils remained black after the operation, with the exception of a few very fine flakes of the softer portion of the lens, which floated in the aqueous humor.

Eight days after the operation, patient's vision is as good as could be hoped for; of course, no critical examination in a bright light has yet been made.

REPORT OF THE CASES OF PNEUMONIA

Observed at the N. O. Charity Hospital during the Session of 1859–60.

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In the July number of the *Medical News and Hospital Gazette*, I reported twenty cases of *uncomplicated pneumonia* observed at the Charity Hospital during the session of 1859–60. A condensed history of each case was given, embracing the name, occupation, age, and date of admission into the hospital; the frequency of the pulse and respirations during the career of the disease; the extent of lung inflamed; the duration of the disease; together with incidental events of importance. To the history of each case, also, a few remarks were appended.

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* Continued from the July number of this Journal.

I now offer two more cases of the same class, and under the head of concluding remarks, I propose to review the facts contained in the histories, with reference particularly to their bearing on the subject of the treatment of pneumonia. Then I shall give a detailed statement of all the cases of *complicated pneumonia* occurring in the same season and in the same wards, with remarks.

CASE XXI.—*Inflammation of the lower lobe of the left lung — Patient convalescent ten days after the date of admission, when my service ended.*—Daniel Tranley, aged 24, Irishman, laborer, was admitted March 18, 1860.

March 19.—He stated that he was seized a week before his admission with acute, lancinating pain in the left side. He had not been well for a week before this, but had kept at work at ditching in wet ground, in Arkansas. After the pain in the side occurred, he walked nearly a hundred miles to reach a boat for New Orleans. He came to the hospital immediately on reaching the city. He had had no medical treatment. The pulse was 108; the respirations 32. The physical signs showed pneumonia, advanced to solidification, in the lower lobe of the left lung. He had been subject to intermittent fever.

Treatment.—Five grains of the sulphate of quinia and two grains of opium three times; two ounces of brandy every three hours, and sustaining diet.

March 21.—Pulse 88; respirations 24. Treatment continued.

March 23.—Pulse 76; respirations 20.

Treatment.—The quinia was discontinued; the syrup of morphia to quiet cough; milk punch and sustaining diet.

March 27.—Pulse 100; respirations 20. The physical signs showed resolution of the affected lobe to be progressing.

Treatment.—Five grains of the citrate of iron and quinia three times; syrup of morphia, milk punch, and good diet.

March 29.—The patient was up and dressed. Treatment continued.

Remarks.—The history of this case shows a favorable and rapid progress from the time of the admission* into the hospital.

CASE XXII.—*Inflammation of the lower lobe of the right lung; the patient having been treated two months before for inflammation affecting the entire right lung.*—James Feeney, aged 25, Irishman, laborer, was admitted March 25, 1860.

March 27.—This patient was in the hospital for pneumonia affecting the whole of the right lung, in January, 1860. *Vide* Case No. 13, of this series. He was well after his discharge, on January 17, until four days before his reädmission, when he was seized with acute, lancinating pain in the right side. He had taken a dose of castor oil before coming to the hospital. The pulse was 120; the respirations 24. The prolabia were somewhat livid. The physical signs showed pneumonia, advanced to solidification, in the lower lobe of the right lung.

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* This patient was subsequently discharged from the hospital, well.

Treatment.—Two grains of opium three times daily, milk punch, and sustaining diet. This had been the treatment since his admission.

March 29.—Pulse 104 ; respirations 28.

Treatment.—Five grains of the sulphate of quinia three times ; the opium and milk punch continued.

Remarks.—At the time my service ended, March 29, the improvement in this case was marked, and the condition of the patient rendered it probable that he would soon be convalescent. The case furnishes an instance of a second attack of pneumonia, occurring about two months after recovery from the first attack, the same lung being affected in both attacks*.

CONCLUDING REMARKS.

In endeavoring to form an estimate, on the one hand, of the intrinsic tendencies of any disease towards death or recovery, and, on the other hand, of the influence of remedies, it is important to take into account the hygienic circumstances under which cases are observed. The Charity Hospital is a noble institution, reflecting great honor on the State of Louisiana, when it is considered that the sick of all nations have the right of free admission on simply making application at the hospital gate, and when it is also considered that it is not only a free asylum for the sick, but made subservient, as completely as possible, to medical instruction. The building, however, was constructed at a time when the principles of hygiene were not so fully appreciated, nor so well understood, as at the present time. The wards have no provisions for ventilation, except by opening the windows, and they are warmed by iron stoves. During the greater part of the winter, the climate of New Orleans is usually sufficiently mild to render these circumstances vastly less important than in other situations; fires are only occasionally needed, and the windows are kept open. But the winter of 1859–60 was remarkably cold, more so than had been known for many years. Fires in the wards were neçessary much of the time, and it was extremely difficult to have the windows kept open sufficiently for ventilation. During the night, especially, the want of proper ventilation was often very manifest. The dimensions of the wards under my charge were as follows: Length 51 feet, breadth 12 feet, and height 15½ feet. The number of cubic feet was 17,391. The number of beds in each ward was 18. This gives a proportion of 966 cubic feet for each patient. But much of the time the number of patients exceeded the number of beds. Not unfrequently six or seven patients were on the floor, rendering the wards too crowded for a proper supply of pure air. It is reasonable to conclude that this exerted an unfavorable influence on the cases of pneumonia, as well as of other diseases; to what extent it is impossible to say. The diet and the administration of alcoholic stimulants are under the charge of the Sisters of Charity in this hospital, and I have always found these devoted women ready to coöperate for the welfare of the sick. The ward nurses are generally persons who have been patients in the hospital, and who are willing to remain and attend upon the sick without pay. Often they are as trustworthy and efficient as if their services were amply remunerated, but the physician cannot always feel confident that his measures are faithfully carried out, especially during the night, when it is sometimes a matter of life or death that the patient receive nourishment and stimulants at short intervals.

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* This patient was discharged from the hospital, well, April 9th.

Of the twenty-two cases of uncomplicated pneumonia reported in this paper, in seven the disease proved fatal. Desiring to study the cases fairly with respect to the treatment, let us, in the first place, review those which ended fatally, in order to see if there are any circumstances belonging to the histories which will serve to account for the termination.

In Case No. 2, death occurred on the day after admission, and the autopsy disclosed a very rare event in pneumonia, viz: a pulmonary abscess. It is clear that, had this event been known during life, it would have furnished an additional reason for pursuing a sustaining plan of treatment.

In Case No. 3, the whole right lung was affected; the disease was at first accompanied by diarrhœa; delirium was a prominent symptom; the pulse was frequent, irregular, and intermitting, and lividity of the prolabia and face was marked. These circumstances would certainly preclude remedies of a depressing character. On a reviewal of this case at the time, I regretted that a more efficient sustaining course had not been pursued.

In Case No. 5, the entire right lung was affected. The patient has been ill two weeks before his admission, and when he entered his pulse was 120, and the respirations 40. Can anything be plainer than that the object of treatment in this case was to endeavor to keep the patient alive till resolution of the affected lung was accomplished? Life was, in fact, sustained for six days, and considerable progress had been made in the resolution of the affected lung; and it seems fair to conclude that this case furnishes a striking instance of the value of sustaining measures, albeit they proved insufficient to carry the patient through the disease.

In Case No. 9, the entire right lung was affected. Diarrhœa existed in this case ; a symptom which is always, so far as my observation goes, of unfavorable omen in pneumonia. This, however, in the present case, was speedily arrested ; and the fatal termination on the third day after admission, was unexpected and unexplained, a *post-mortem* examination not being made.

In Case No. 12, the entire right lung was affected. The disease had existed for six days. The pulse was 132, and the respirations 40, when the patient entered. Death occurred on the second day after admission. There can hardly be a question as to the importance of vigorous sustaining measures in such a case. Had they been resorted to at an earlier period in this, and in other of the fatal cases, it is not unlikely that the lives of the patients might have been saved.

In Case No. 18, the entire right lung was affected. The disease had existed for five days before he entered. The pulse was 128, and the respirations 52, on the day after his admission. Supporting treatment in this case did not prevent death from taking place on the day after admission.

In Case No. 19, the entire right lung was affected. The disease had existed for a week before he entered. Delirium was a prominent symptom. The prolabia were livid. The respirations were irregular. No practitioner certainly, under such circumstances, would think of depletion, or of any debilitating therapeutical measures. The patient's condition was desperate, and death took place on the second day after admission.

It thus appears from the foregoing reviewal, that, of the fatal cases, in all save one the inflammation extended over the whole of the right lung, and in the excepted case the inflammation was seated in the upper lobe of the right lung, and had eventuated in abscess. In all the cases, save two, the disease had existed for five days, or more, before the patients entered the hospital. In one of these excepted cases, the patient entered for diarrhœa, together with the effects of dissipation, and the disease was developed in the hospital. Moreover, the symptoms in all the cases were such as must have indicated the propriety of sustaining measures of treatment, even to the minds of those practitioners who are strongly in favor of antiphlogistic measures in the management of pneumonia. I suppose that no candid reader will impute the termination in any of these cases to the use of tonics, stimulants, and nourishment ; on the contrary, if, in any of the cases, the treatment had aught to do with the termination, the deficiency was in the lack of sufficient rigor in the employment of these measures, or in their not having been carried out as efficiently as directed. In nearly all of these cases, in short, the extent of lung effected, the duration of the disease prior to admission, and the general condition of the patients, as shown by the frequency of the pulse and respirations, together with (in several instances) diarrhœa, delirium, and lividity of the surface, rendered the prospect of recovery exceedingly small, and the chances were, at certain times, lessened by the overcrowded state of the wards and defective ventilation. It remains, then, to consider the apparent influence of the treatment in the cases which recovered.

Of the fifteen cases which ended in recovery, the treatment in none embraced bloodletting, emetics, cathartics, or other depletory measures. In no case, save one, were any depressing remedies prescribed, unless opium be so considered ; and this remedy, in view of the circumstances under which it was given, can hardly be thus regarded. In the excepted case tartar emetic was given, in small doses, for a short time. Mercurial preparations were not prescribed in any case. Blisters, or other means of counter-irritation, were not employed. In the majority of cases, viz : in ten, alcoholic stimulants formed a prominent part of the treatment ; that is, brandy was given in doses of one or two ounces, repeated every two, four, or six hours. In some cases, during the progress of the disease, wine or porter was substituted for brandy, when the patient expressed a preference for these articles. Opiates also entered prominently into the treatment in a majority of the cases, viz: in twelve. In these cases either from six to eight grains of opium were given during the twenty-four hours, in divided doses, or from three-fourths of a grain to a grain and a half of the sulphate of morphia within the same period. In short, the treatment was anodyne and sustaining in all the cases, save a few in which there were no indications for active treatment of any kind. The sulphate of quinia was prescribed in cases in which the patients had been affected with intermittent fever. The quantity prescribed was generally five grains three times daily. The muriate of ammonia was given in a few cases, in doses of a drachm three times daily, with a view to hastening the absorption of the inflammatory exudation. The cases, however, are too few to deduce from them any positive conclusions respecting the effect of the remedy last named. The carbonate of ammonia was prescribed in several cases as a cardiac stimulant, and upon theoretical grounds, to prevent the formation of coagula within the heart, an event which the researches of

Grisolle have shown to occur oftener in this than in various other acute affections, and which seems not to have been sufficiently considered as affording an explanation of the fatal termination in a certain proportion of fatal cases of pneumonia.

One of the cases in this series is interesting from the fact that the patient had passed nearly through the disease before his admission, under hygienic circumstances as unfavorable as could well be imagined, without medical treatment, save a cathartic dose of calomel, and, toward the latter part of the disease, the sulphate of quinia. Case No. 17 is the one referred to. The history of the case shows a strong intrinsic tendency of the disease, in that instance, toward recovery.

As regards diet and regimen, milk and the essence of beef, given alternately, at short intervals, formed an essential part of the sustaining treatment. Solid nutritious food, viz : meat, bread, rice and eggs, were allowed as soon as convalescence was declared. The patients were encouraged to get up as soon as they felt disposed after convalescence.

The duration of the disease cannot be ascertained in all the cases, owing to the precise date of the attack not having been always determined. Of eleven cases the histories of which afford information on this point, the maximum duration from the date of the attack to convalescence was seventeen days, and the minimum duration seven days ; the mean duration in these cases is a fraction over twelve days. The duration from the date of admission to the time of discharge is noted in twelve cases. The maximum duration was fifty days ; the minimum, six days ; the mean duration is a fraction under eighteen days.

The immediate apparent effects of treatment, as shown by a considerable reduction in twenty-four or thirty-six hours of the frequency of the pulse and respirations, was marked in several cases. The cases which may be especially referred to, as regards this point, are the following: Cases No. 6, No. 7, No. 8, No. 13, No. 14, No. 20, and No. 21. The question, of course, may be raised respecting the apparent immediate effects of treatment in these cases, whether the change occurring within a short time was not due to the natural course of the disease rather than to the influence of remedies. This question cannot be answered positively, and I have therefore used a guarded expression in saying the immediate *apparent* effects of treatment. The question is left with the reader.

The non-fatal cases varied considerably in the gravity of the disease. On examining the histories with reference to the extent of lung affected, I find that in light cases a single lobe was alone affected. In three of these eight cases, the lower lobe of the right lung was the seat of the disease; in four cases the lower lobe of the left lung was the seat, and in one case the upper lobe of the right lung was alone affected. In seven of the fifteen cases the inflammation extended over more than one lobe, viz: in four cases were affected either the upper and lower lobes or the entire right lung; in one case, the lower and middle lobes of this lung; in one case the upper and lower lobes of the right lung, and the lower lobe of the left lung, and in one case both lobes of the left lung. An extension of inflammation over more than a lobe in nearly one half of a series of fifteen consecutive cases of uncomplicated pneumonia, would hardly be anticipated from the relative proportion of cases in which the disease is found to be limited to a lobe in larger collections of cases made during a series of years. For instance, Andral found in anlyzing 88 cases with reference to the seat of the disease, that the affection was limited to the lower lobe in 47; to the upper lobe in 30, and in 11 cases only did the inflammation extend over the entire lung.* The large proportion of cases in the series now reported, in which the inflammation involved more than a lobe, goes to show that the disease during the season in which these cases were observed, was unusually severe. All practitioners are aware of the fact, that the pneumonia prevailing at different seasons and situations varies greatly in the extent of lung involved, and in other points which affect materially the gravity of the disease. The observations of Grisolle, Stokes, and others, show a remarkable proclivity in the disease, at certain seasons, to affect the upper instead of the lower lobes, this variation from the usual course of the disease denoting greater severity than usual.

The frequency of the pulse, as noted in several of the histories showed gravity of the disease. In two cases the maximum of the pulse was 132 per minute, and in four cases it was as high as 120 per minute. The same is true with regard to the frequency of the respirations. In two cases the respirations were increased to 40 per minute; in one case they were 36; in four cases they were thirty-two, and in four cases they were 28. It is, of course, understood that reference is now made to the cases which ended in recovery.

Finally, in several cases, various contingent circumstances existed in the non-fatal cases which must be considered as constituting obstacles to the favorable progress of the disease. In one of the cases the pneumonia became developed two days after the patient had been discharged from the hospital, convalescing from a severe attack of delirium tremens. In another instance the patient had recently been in hospital with intermittent fever. In one case the pneumonia succeeded fracture of a rib, intermittent fever, and lead poisoning. Profuse epistaxis preceded the development of the disease in one case. Delirium, resembling that of delirium tremens, was a prominent feature in the history of a case. One patient walked a hundred miles in order to get on a boat to New Orleans, after being attacked with pneumonia. And one patient had been in hospital with pneumonia affecting the whole of the right lung two months before a second attack in which the lower lobe of the same lung was the seat of the disease.

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* Grisolle *Traité Pratique de la Pneumonie*, page 34.

I now pass on to the consideration of the cases of *complicated pneumonia* which were observed during the same session. Of the whole number of recorded cases, in *sixteen* the pneumonia was complicated with other affections. In studying this disease with reference to its clinical history and management, it is manifestly important to separate the complicated from the uncomplicated cases. In cases of complicated pneumonia, the phenomena of the latter are combined with those which are due to the co-existing affection or affections. The symptoms belonging to the pneumonia cannot be accurately determined by analyzing these cases. Cases of complicated pneumonia do not afford data for determining the mortality due to the disease *per se*, or its intrinsic tendency to death or recovery. Association with other affections may render the disease fatal, when, were it uncomplicated, it might have been wholly devoid of danger. Clinical observation has abundantly established the fact, that, in general, a pneumonia, occurring in a person of fair previous health, and limited to a single lobe of the lungs, is not a very grave affection. The intrinsic tendency, under these circumstances, is to recovery. Patients recover without medical treatment, and under unfavorable hygienic circumstances. Fatal cases of uncomplicated pneumonia, as illustrated in the former part of this report, are usually cases in which the inflammation extends over an entire lung, or in which untoward circumstances of some kind are involved, such as feebleness of constitution, neglect, injudicious therapeutical interference, etc. All these incidental circumstances are, of course, still more likely to affect the result when the pneumonia is complicated with some other affection. The nature of the complicating affection, it is obvious, is of importance as regards the symptoms, danger, and the result. It is not enough to say merely that the pneumonia is complicated; but in estimating the condition of the patient, in each case, the coëxisting disease or diseases must be considered. It is needless to add that, in judging how far the treatment pursued in any case may have affected the termination and duration of the disease, it is essential to know whether the disease be complicated or not, and if complicated, the nature of the coëxisting affection or affections.

These remarks are offered in explanation of the propriety of considering in separate articles the cases of uncomplicated and of complicated pneumonia, in addition to the advantage of occupying a considerable portion of three successive numbers of the Journal, rather than a very large share of a single number.

CASES OF COMPLICATED PNEUMONIA.

CASE I.—*Complicated with Pericarditis—The whole of the right lung affected—Death thirteen days after admission.*—William Donnavan, aged about 45, Irishman, laborer, admitted October 25, 1859.

He had not been well for a month before his admission, having had chills, followed by febrile movement, recurring at irregular intervals, accompanied with some cough. Pneumonia was developed after his admission, while he was under treatment for symptoms referred to malaria, the treatment consisting of the sulphate of quinia at first, and afterwards the citrate of iron and quinia. The patient had been subject to intermittent fever. He did not take to the bed until November 2d, seven days after admission, and on the following day the existence of pneumonia was determined. On this date, over the lower lobe of the right lung all the physical signs of solidification were observed. The respirations were 28 ; the pulse 100, and compressible. Sulphate of quinia, gr. v, and opium, gr. ii, three times.

November 5.—The inflammation had extended to the upper and middle lobes of right lung. Resolution had taken place in the lower portion of the inferior lobe. The treatment was continued. Porter, six ounces three times daily, was directed, and milk for diet.

November 16.—Delirious during the night, but not actively. Some wandering during the day. *The pulse was* 80, *quite small and feeble ; the respirations, while sleeping, were* 16, *the inspirations somewhat spasmodic.* The skin was cool and moist. There was some tracheal rattling.

Treatment.—Brandy ℥ii every two hours ; essence of beef and milk for diet. The quinia and opium continued.

November 7.—Wakeful during night and delirious. To-day incoherent. Pulse 100; respirations 24. Tracheal rattle.

Treatment.—Quinia and opium continued; porter substituted for brandy, and diet continued.

November 8.—Wakeful, restless night, groaning with every breath. The latter symptom continued during the day. He complained of pain in the left side near the nipple and distress for want of breath. The pulse 120 and quite small; respirations 28, and inspirations spasmodic. Prolabia and tongue livid.

Treatment.—Sulphate of morphia until pain is relieved and brandy as freely as possible.

Death took place during the afternoon of this day.

On examination after death, the upper and middle lobes of the right lung were in the second stage of pneumonia. The lower lobe had undergone resolution. The pericardial serous membrane was roughened with recent exudation of lymph. The sac had been opened, and the quantity and character of the liquid which it contained not observed. The right auricle was filled with black clots. The right ventricle was filled with colorless fibrin surrounding a dark clot—the fibrin firmly intertwined with the columns and tendinous cords The left ventricle contained a mass of colorless fibrin closely intertwined with the tendinous cords, and a portion of fibrin extended into the aorta.

Remarks.—The pericarditis was probably developed during the latter part of the disease, and notwithstanding the diffusion of the pneumonia over the whole of the right lung, a favorable result might have been reasonably looked for, had the disease been uncomplicated. The immediate occasion of death may have been the formation of clots in the cavities of the heart.

Case II.—*Inflammation of the upper lobe of the right ung—Pericarditis—Ancient Pleurisy—Death on the fifth day after admission.*—Pedro, Mexican, aged 50, admitted November 5, 1859.

The patient was unable to speak English, and the previous history was very imperfectly obtained. He had been ill for sixteen months. He had been a boatman and fisherman. He was greatly prostrated. He had been confined to his bed for several months.

Pulse 100, extremly small and irregular; respirations, 40. Skin cool and moist.

Physical signs showed solidification of the upper lobe of the right lung. The right side was universally contracted, and the respiratory movements restrained. The fingers were slightly bulbous and the nails curved.

Treatment.—Sulphate of morphia, a quarter of grain three times daily; port wine four ounces three times, and sustaining diet.

The patient died November 10th.

On examination after death, the lungs were found to be pretty firmly adherent on both sides. The pleural surfaces on both sides were covered with lymph firm and membraniform, but not organized. In some parts the lymph was an eighth of an inch in thickness. The upper lobe of the right lung was incompletely solidified. Partial resolution had apparently taken place. The lower lobe was spongy and crepitant; no tubercle.

The lungs on both sides were firmly agglutinated to the pericardial sac, and the lungs were adherent at the interlobar fissures.

The pericardial surfaces, visceral and parietal, were covered with lymph which in most parts presented a reticulated arrangement, but in some places was in the form of membranous-like layers. In order not to impair the specimen the cavities were not opened. Other organs not examined.

Remarks.—The pericarditis and the pleurisies were evidently antecedent to the pneumonia in this case. Yet, notwithstanding the latter affection was developed under circumstances so unfavorable, considerable progress had been made toward resolution. The fatal result was evidently due to the combined affections.

CASE III.—*Inflammation of the lower lobe of the left lung—Typhoid symptoms—Parotiditis—Death ten days after admission.*—John Boyle, aged 34, admitted November 1, 1859.

The record of this case was not made till it had ended fatally. The patient was not examined for a pulmonary affection and pneumonia was not suspected for several days after his admission. It was supposed to be a case of latent intermittent, and the *haustus quiniæ* of the hospital was prescribed. The disease, as respects symptoms, was completely latent.

Three days before the death of the patient he was observed to be dull, indifferent, and at times incoherent. He presented the aspect of a patient with typhoid fever, but the abdominal symptoms were wanting. At this time parotiditis on the left side occurred. There was moderate febrile movement. The abdomen was excavated, and there was no eruption.

The typhoid condition became more marked. He passed the urine and fæces in bed. The left parotid continued to be swelled and tender.

On the morning of the 10th, it was observed that the respirations were accelerated. Physical exploration revealed solidification of the lower lobe of the left lung. *He had never been observed to cough or expectorate.*

Treatmet.—Alcoholic stimulants and sustaining diet.

Death took place during the night.

The contents of the chest were removed for my inspection by Mr., now Dr. Stone, house student.

The lower lobe of the left lung was solidified by inflammatory exudation. Elsewhere the lung was healthy. *There was no pleuritis over the affected lobe.*

The heart and pericardium presented no morbid appearances. The cavities contained very little blood, and no coagula save a single small white clot in the right ventricle. The endocardium was everywhere deeply stained with hæmatin. The brain presented nothing abnormal. The abdominal viscera were not examined.

Remarks.—The latency of pneumonia in certain instances was illustrated by this case. In connection with the absence of pain and other symptoms referable to the chest, it is to be noted that the pneumonia was not associated with circumscribed pleuritis—a circumstance extremely rare in cases of pneumonia The omission to examine the abdomen is not explained in the record, and the reason is not now recollected. The state of the mind and the parotiditis would suggest typhoid fever ; but diarrhœa, tympanites and abdominal tenderness were absent. It must remain in doubt whether the case was one of typhoid pneumonia, or of pneumonia developed as a complication of typhoid fever. Owing to the case having been noted only at the time of death, the recorded history during life is not complete.

CASE IV.—*Inflammation of the entire right lung. Delirium Tremens—Pericarditis—Death on the second* *day after admission.*—A patient was admitted early in November, 1859 (name not noted), in the evening, and was seen by me in company with Dr. A. W. Smith, at that time the Assistant Surgeon of the Hospital. He was entirely delirious, the delirium presenting the characters of delirium tremens. Mechanical restraint was resorted to in order to keep him in bed. The pulse was frequent and feeble. Physical signs showed solidification of the entire right lung. The previous history was not ascertained. The man was in the middle period of life. The treatment consisted of laudanum and alcoholic stimulants. Death took place during the following night.

The foregoing is all the recorded history of this case.

The lungs and heart were removed from the body for my inspection. The entire right lung presented solidification from inflammatory exudation. A dense layer of lymph covered the upper lobe, not firmly adherent. The lower lobe was also covered with lymph less dense.

The heart presented a thin closely-adherent layer of lymph on the right ventricle, covering a space as large as a dollar. No other morbid appearances are noted.

Remarks.—The circumscribed pericarditis in this case, doubtless was antecedent to the pneumonia ; it was not recent and had nothing to do with the fatal result. The condition of the patient on his admission, renders the case valueless as regards the therapeutical management of pneumonia.

Case V.—*Inflammation of the entire right lung, succeeding Delirium Tremens—Gangrene of lower lobe—Pericarditis—Death on the seventh day after admission.*—Henry Porter, aged 44, Irishman, steward, admitted November 15th, 1859.

This patient was in one of my wards when my hospital service commenced, November 1, recovering from an attack of delirium tremens. Four days afterwards he was discharged. He stated that he drank nothing but a little beer and claret wine after leaving the hospital. The attack of delirium tremens was severe, the delirium being so violent that for a time he was transferred to the cells of the hospital.

About four days before his reädmission, he was attacked with cough and pain in the side. The symptoms denoted pneumonia, and the physical signs showed solidification of the lower lobe of the right lung.

Treatment.—Opium, two grains every six hours; porter, three ounces every three hours, and sustaining diet.

November 17.—He reported better. No delirium. The pulse was 92; respirations 16.

Treatment continued.

November 18.—No material change. Pulse 88; respirations 20. Some incoherent talking.

Treatment centinued.

November 19.—On the preceding evening physical signs showed extension of inflammation to the upper lobe. On this morning pain was marked in right side, and the expectoration was bloody. The pulse was 100; respirations 32. He was constantly incoherent.

Treatment.—Sulphate of morphia, half a grain every six hours; brandy, two ounces every two hours, and sustaining diet.

November 20.—Constant muttering delirium continued. The breath, when he coughed, was extremely fœtid. The expectoration presented the prune-juice appearance. The pulse was 120; respirations 36. The inspirations were somewhat spasmodic.

Treatment continued, with the addition of the carbonate ammonia, five grains every two hours.

November 21.—Marked improvement. The muttering had ceased, and he had seemed to obtain good sleep. The cough and expectoration had much diminished, the latter still having the prune-juice character. The pulse was 108, regular, and of tolerable strength; the respirations 32.

Treatment continued.

November 22.—Delirious during the night, but he appeared in the morning rational. The pulse was 120, and small; the respirations 36. The expectoration deeply bloody.

Death took place at ten the following night.

The lungs and heart were removed for my examination by Mr. Stone.

There were old pleuritic adhesions on the left side, and recent lymph on the right side. The lower lobe of the right lung, in about one third of its volume, at the inferior and posterior part, was dark-colored, soft, and, in some portions, diffluent, exhaling a gangrenous odor. The remainder of this lobe was softened, œdematous, and solid, but not presenting the granular appearance of inflammatory solidification. The upper lobe of the right lung was solid, apparently from œdematous effusion. The left lung was healthy.

The pericardial sac contained from three to four ounces of turbid liquid; and numerous shreds of lymph were floating loosely in the sac, no lymph being adherent at any part, and the serous membrane being everywhere smooth and polished.

The heart was normal as respects size. It contained in the left ventricle a small quantity of colorless fibrin, sending a prolongation into the aorta. In the right ventricle and auricle the colorless fibrin was more abundant, and in the ventricle it was closely intertwined with the tendinous cords.

Mr. Stone reported that he examined the brain and found a thin layer of extravasated blood on the superior portion of the hemispheres.

Remarks.—Resolution of the pneumonia had, in a great measure, taken place in this case, *i. e.*, the inflammatory exudation had been removed. Gangrene occurred as a result or a sequel of the pneumonia. Slight pericarditis was also developed. The fatal termination was, therefore, sufficiently explained.

It is interesting in this case to remark the improvement in the symptoms which took place between November 20th and 21st, as indicated by the pulse, respirations, and nervous system, the patient having taken forty-eight ounces of brandy in the twenty-four hours! This illustrates the fact that the immediate effects of measures of treatment may afford evidence of the value of these measures in cases which prove fatal, as well as those which end in recovery. We may, perhaps, even say that the evidence of value afforded by the immediate effects of therapeutical measures, is even stronger in fatal cases than in those which terminate in recovery, because, in the former cases, there is less ground to impute apparent immediate effects to the natural progress of the diseases.

Case VI.—*Inflammation of the entire left lung—Convalescence on the sixth day after admission—Discharged on the seventeenth day—Complicated with bronchitis.*—Thomas Culkin, aged 23, a steamboat hand, admitted Nov. 23d, 1859.

He had traveled to the city on foot, and lay out of doors on the ground, in the swamp, for five consecutive nights. He was attacked on the same day that he entered the hospital, with a severe chill, acute pains in the left side, dyspnœa and high febrile movement.

Treatment.—Sulphate of morphia, half a grain at night.

Nov. 24.—The symptoms continued, and the physical signs showed pneumonia advanced to solidification in the lower lobe of the left lung, and bronchitis on the right side.

Treatment.—Sulphate of morphia, half a grain, and brandy, two ounces, in form of milk punch every six hours, with sustaining diet.

Nov. 25.—Restless night with usual illusions. Pulse was 120 and compressible ; respirations 24. The physical signs showed extension of inflammation advanced to solidification over the upper lobe of the left lung. At evening the pulse was 128 ; respirations 32, with dilatation of nostrils. The inspirations were somewhat spasmodic and the surface of the body presented some lividity.

Treatment.—Carbonate of ammonia, five grains, and brandy two ounces every three hours, with sustaining diet.

Nov. 26.—More quiet night. Pulse 134 ; respirations 28 Pain much diminished. Lividity less marked. Physical signs still showed solidification of the left lung. The signs of bronchitis had disappeared from the right side. The latter signs were loud bronchial rales and broncal fremitus. Treatment continued.

Nov. 27. Marked improvement and treatment continued.

Nov. 28. Improvement continued. Pulse 80 ; respirations 20.

Treatment.—Brandy and nutritious diet continued.

Nov. 29.—Convalescing; sat up an hour. The solidification of the affected lung diminishing.

Treatment.—Brandy diminished to one ounce every three hours. Nutritious diet continued.

Nov. 30.—Convalescence progressing.

Treatment.—Sulphate of morphia, an eighth of a grain three times; brandy continued.

Dec. 10th.—Convalescence had continued without anything untoward, and the patient was discharged on this date, reporting quite well. The vesicular murmur existed over the whole of the left lung.

Remarks.—The pneumonia in this case was associated with bronchitis, the latter not limited to the side affected with the pneumonia, but extending to the opposite lung. This association is not common. It adds to the gravity of the pulmonary symptoms and to the danger. After the first two days, when the sulphate of morphia was prescribed, the treatment consisted of brandy given pretty freely and sustaining diet. The symptoms during the first night appeared to threaten delirium tremens. The career of the disease was unusually short (seven days); the convalescence was rapid, and the recovery complete.

CASE VII.—*Inflammation of the upper and lower lobes of the right lung—Complicated with Delirium Tremens—Death on the third day after admission*—Terence Darby, aged 30, admitted Nov. 28, 1859.

Dec. 29.—The patient, on his admission, presented well marked delirium tremens, and stated that he had once before had that disease. He had not slept for two nights, had usual illusions, etc. On the 27th, he had been attacked with lancinating pain in the vicinity of the left nipple. The pulse and respirations were accelerated, but the precise frequency not noted. The physical signs showed the existence of pneumonia in the lower lobe of the right lung.

Nov. 30.—Vigilant and delirious during the past night. Pulse 120, rather large, quick and vibratory, but compressible. Respirations 26.

The treatment on the 29th was the sulphate of morphia, half a grain every six hours, with brandy, an ounce every three hours. On the 30th, a grain of the sulphate of morphia was prescribed, to be repeated in four hours if the patient did not become quiet, and an ounce of brandy hourly, with sustaining diet. He took three grains of morphia during the day.

Dec. 1.—He had slept for two hours during the preceding evening, but afterwards was vigilant and delirious during the night, so that mechanical restraint was employed. Death occurred at 1 P. M.

The lung, heart and brain were removed for my examination by Mr. Stone. The brain presented considerable venous congestion ; otherwise nothing abnormal was observed.

The lower lobe of the right lung was solidified by exudation. The upper lobe of the same lung was in the first stage of pneumonia—the stage of engorgement. It was more solid than healthy lung, and on section, the divided surfaces presented a very dark color. On pressure, bloody liquid, slightly frothy, flowed from the incised surfaces. The contrast was striking, on comparison of this lobe with the upper lobe of the left lung ; the latter was spongy, not engorged, and after section, an abundance of frothy serum escaped on pressure. The same was true of the lower lobe of the left lung.

The heart presented, externally, a normal appearance. The contents were not examined.

Remarks.—Delirium tremens, so far as my observation goes, constitutes a very grave complication of pneumonia. In the majority of cases a fatal result may be expected. Death taking place in this instance just as inflammation had commenced in the upper lobe, the rare opportunity was offered of observing the appearances of the first stage of pneumonia.

VESICO-VAGINAL FISTULÆ.

By E. R. Mordecai, M. D., Mobile, Ala.

Case No. I.—Sally, aged sixteen years, servant of Miss J. C——, of this city, was, to use her own expression, "torn to pieces" with her first child, which almost literally "rotted out of her." Her confinement was followed by the usual signs of fistula: constant dribbling of urine, excoriation of the nates, and the characteristic odor which ever attends this deplorable injury.

On examination, it was found that the urethra, very near its vesical termination, was cut entirely through to its anterior wall. From this central rent the fistule extended on either side, upwards and outwards, into the vesico-vaginal septum proper, creating an urethro-vesico-vaginal fistula, crescentic in shape, and more than an inch in length.

Operation.—After beveling the posterior border, the anterior, being inverted and immovably fixed to the pubic bones, was pared horizontally, as recommended by Dr. Bozeman, and a button of an oval shape applied, securing four silver sutures.

Finding need and space subsequently for an additional suture, at the left extremity of the fistule, it was passed, and fixed by another button, with a single perforation, entirely independent of the first, and resting on a different plane. On the ninth day the buttons were removed, and union found to be perfect, notwithstanding the larger button, which covered the center and right of the line of operation, was considerably incrusted with calcareous deposit from the urine. The incrustation was at first referred to any urine which, escaping from the extremity of the catheter, might have found its way into the vagina, and thus have come in contact with the button. But, on further search for the cause, by injecting the bladder, a very small fistule, just large enough to permit the introduction of a probe, was found to exist above and to the right of the one operated on. This received subsequent attention.

Result.—As might be expected, taking into consideration the shortening of the urethra, and the necessity of cutting away some of the fibres of the sphincter, the patient could not retain her urine long at a time after the operation. But she became a useful servant, led a comfortable existence, and the cicatrix, when examined last, was bearing the strain of a gravid uterus, which had nearly attained the full development of pregnancy. Her accouchment is looked forward to with anxiety; for a malformation is known to exist at the inferior strait, and the vagina has greatly and rigidly contracted since the operations for the fistule.

As a shield, in a *case like this*, properly made and properly applied, the button of Bozeman seems to me invaluable. Is it likely that the urethral portion of the rent, at least, under the circumstances recorded above, would have closed without such protection? Study the button as a *splint*, as a *shield;* study its *concavity* as a means of apposing the *whole* thickness of the vesico-vaginal septum, and there will be little reason to modify, and no reason to discard it in practice.

I omitted to state that the operation was performed in the presence of Drs. Gaines and Cox, and that the patient was afterwards examined by Dr. Redwood.

* * *

SPECIAL SELECTIONS.

AMERICAN MEDICAL ASSOCIATION.

THIRTEENTH ANNUAL MEETING, *held at New Haven, June 5th, 6th, and 7th,* 1860.

Reported expressly for the Medical and Surgical Reporter, by Dr. J. SOLIS COHEN

(Continued from last No.)

THIRD DAY'S PROCEEDINGS.

The Association was called to order at 9, A. M., by the President, Dr. Eli Ives; afterwards, Dr. Jewell, of Philadelphia, presided.

The minutes of the previous day's proceedings were read by the first secretary, Dr. S. G. Hubbard, of New Haven.

A list of newly registered delegates was read, making the number over five hundred.

On motion of Dr. Arnold, of Georgia, it was resolved that no communication read before the Association should occupy more than ten minutes in its reading, and no speaker should occupy the floor longer than ten minutes.

On motion of Dr. Shattuck, of Massachusetts, the rules of order were suspended, in order to allow Dr. Bowditch, chairman of the committee appointed to take into consideration the propriety of contributing in the erection of a suitable memorial to John Hunter, in Westminster Abbey, to present his report. On motion, it was resolved that the Committee on Nomination be requested to consider the report and resolutions attached to it, and report thereupon, presenting the names of one from each State represented, who shall be empowered to take such action in the matter as may be hereafter agreed upon by the Association.

The Committee of Conference appointed to confer with the committee of medical teachers reported through their chairman that they had had several meetings in New York and New Haven, during which the subject of medical education had been fully discussed. He stated that in the convention of Teachers the following resolutions were adopted :

1st. *Resolved*, That the Medical Colleges represented in this Convention, are willing to adopt the rule, if it be recommended by the American Medical Association, that every candidate for degree of Doctor in Medicine must present certificates of having assiduously studied medicine during the period of three full years under the direction of a regular practitioner of medicine, recognized as such by the American Medical Association, who shall certify to the same under his own hand, and of attendance on two *full* courses of medical lectures in a medical school, recognized as regularly organized by the American Medical Association, with an interval of at least three months between the termination of the first course and the commencement of the last.

2d. *Resolved*, That the medical colleges represented in this Convention, are willing to keep a register of their students, in which shall be entered the name, the age, the period of commencing medical studies, and diploma already received, with the name of the college conferring it, and the name of the preceptor.

3d. *Resolved*, That the medical colleges represented in this Convention, allowing that the proposed plan of admitting delegates from State Societies to attend the examination of the candidates for the degree of Doctor in Medicine to have been successfully carried out in several places, do not think that it can with advantage be universally adopted ; but at the same time they are ready to ascertain and discuss any other measure by which the admission of unsuitable and unworthy members within the ranks of the profession can be prevented.

4th. *Resolved*, That this Convention earnestly recommend the American Medical Association to adopt such measures as will secure the efficient practical enforcement of the standard of preliminary education adopted at its first organization in May, 1847, or of a standard put forth by the medical Society of the State in which a college is located, and that medical colleges will thankfully receive and record the certificates alluded to in said standard, and one of moral character, whenever the profession generally, and the preceptors will see that students are properly supplied with them.

5th. *Resolved*, That the Hospital Clinical instruction constitutes a necessary part of medical education, and that every candidate for the degree of Doctor in Medicine, shall be required to have attended such instruction regularly for a period of not less than four months.

6th. *Resolved*, That the members of this Convention are ready to coöperate in any efforts by which the attention of the community and of legislatures shall be called to the importance of the endowment of medical colleges and professorships.

7th. *Resolved.* That the attention of the American Medical Association be called to the proofs, in a letter from a German Medical Professor, of the degree of Doctor in Medicine being conferred in Germany on unsuitable persons to be used in this country."

[At the meeting of the Convention of Medical Teachers, during the discussion on the above resolutions, Professor Logan, of Georgia, offered the following as a substitute :

Whereas, it is apparent that the medical colleges of the United States are not disposed to adopt the measures indicated by the American Medical Association, for the establishment of a higher system of medical education, as manifested by the failure upon the part of a large portion (and among the number some of the most prominent) to be represented at the Convention of Colleges, held last year in Louisville, and by a renewal of the same course of action towards the adjourned meeting of said convention, and as no action on the part of the colleges represented would be likely to effect any change in the present system of medical education, and any attempt on the part of this limited representation to initate any reform might be regarded as an offensive assumption of power ; therefore,

Resolved, That this body declines to act for the medical colleges of the United States.

Resolved, That in the medical colleges alone resides the power of effecting any desirable change in the present system of medical education, and it is only from their united action that any good result can be expected.

Resolved, That a committee of ——— be appointed to report the action of this body to the American Medical Association.

The substitute was discussed by Profs. Logan, Shattuck, Crosby, McGugin, McDowell, Storer, and Palmer, and was finally rejected.]

The chairman then read the following communication, addressed to the Convention of Teachers, by Prof. Henry N. Frost, of the Medical College of South Carolina, in regard to medical education in the South :

"I should wish to be heard while I make a few remarks on the progress of education at the South, and the advances we have made in fulfilling the requirements of the Association. The report in my hand of the Dean of the Medical College of the State of South Carolina, of the graduates of that college and their requirements, presents a total of 114 graduates—all of whom had a preparatory education, such as the Association requires. Nearly all, with the exception of six, have had good literary opportunities : some graduates of colleges—others of academies of high repute—others instructed in the classics. Even those whose studies were confined to English, have had their minds strengthened by the study of mathematics.

"In making this statement, I would not be understood to say, that they were well versed in the classics ; but they have enjoyed the opportunity, and profited in a greater or less degree by it. Neither would I be understood to say, that our graduates are all doctors. The diploma conferred is only an evidence that they have undergone a course of study ; that they have been instructed in the principles of the profession, and made acquainted with the means by which they are to arrange and systematize the various occurrences presented to them ; in short, that the foundation has only been laid by which they are to pursue advantageously their researches, and act for themselves. To be able doctors and successful practitioners, requires years of study and observation, and there are many who, after all this application, have never been made doctors.

The community in which a young graduate resides, soon becomes aware of this fact ; it is only after a long apprenticeship, and years of toil and devotion to his business, that he acquires practice and confidence. Confidence is proverbially a plant of slow growth, and it is only after the individual has proved himself worthy that it is freely disposed. Still, however, every doctor has been a student, and as such has to endure taunts and imputations as to his qualifications. I well remember when a student in medicine, forty-seven years since, fashionable ladies commented upon the homely appearance and neglected dress of the students of Philadelphia, and tauntingly remarked that there was little to be observed in the streets but dogs and Virginia doctors! Yet from these classes, of whom these remarks were made, there came forth a Wood, Mitchell, Meigs, McClelland, Hodges, Bartons, Derach, and, not to forget my own section, Dickson, Holbrook, Ramsay, and many others. Yet these young men were as ungainly as many at the present day ; but they contained the gem, as many at the present day, which required only to be polished. Education has been progressive to my observation ; our graduates show their desire to excel by seeking opportunities abroad for greater acquirements. In my day, our reading was desultory and without system. My preceptor pointed to his library, and told me to select my reading. My anatomical studies were pursued with a scalpel and the Dublin dissector. Our clinical instruction was nothing virtually. Mark the difference at the present time: your winter and summer courses; your crowded hospitals; your private instructions, and your model plates, etc. All these speak trumpet-tongued, that the work of improvement is onward."

In conclusion, the Committee offered the following resolutions for the adoption of the Association:

Resolved, That it is the duty of medical colleges to require of every candidate for the degree of Doctor of Medicine, certificates of study during the full period of three years, under the direction of a regular practitioner of medicine, recognized by the American Medical Association, who shall certify, under his own hand, as to an attendance on two full courses of lectures, with an interval of at least three months between the termination of the first and the commencement of the second course.

Resolved, That every medical college shall keep a volume, in which every medical student presenting himself, shall enter his name, his age, the period of his commencing the study of medicine, any diploma he may have received in evidence of previous education, with the name of the college or school from which he received such diploma, and the name of the preceptor with whom he has been studying.

Resolved, That hospital clinical instruction constitutes a necessary part of medical education, and every candidate should be required to have attended such instruction regularly for a period of not less than four months.

Resolved, That the professors of every medical college should recommend to their trustees, or board of managers, the adoption of a rule authorizing them to allow the attendance of two or three delegates from the State Medical Society, at all examinations of candidates for the degree of the doctorate, and accord to these delegates a vote on the question of recommending such candidates for a degree.

Resolved, That every State Society be recommended to choose proper delegates at its annual meeting, to attend the examination of candidates for the degree of M. D., at all the medical colleges within their respective States.

Resolved, That this Association will not recognize as a regular organization any college which does not require evidence of suitable preliminary education from all applicants for collegiate medical instruction.

Resolved, That we commend the use of all proper efforts by which the attention of persons of means and liberal disposition, as well as legislative bodies, shall be directed to the propriety of endowing such medical colleges, and professorships thereof, as shall be recognized by the Association.

Resolved, That this Association recognize as a regularly organized medical college, one which has been represented at any meeting of this Association, and which complies with the preceding rules and directions.

Resolved, That this Association recognize as regular practitioners of medicine, all who have been members of this Association, and have not forfeited their rights and privileges, and all members of State and County Societies in full standing.

The report was received, and taken up by sections. When the first resolution came up, a motion was made to amend, by striking out that part requiring an interval of three months to elapse between the termination of the first course and the commencement of the second; the objection being that the resolution, if adopted as offered, would do an injustice to summer schools, whose sessions would have to begin three months after the closure of the winter sessions, in order to graduate students, thus throwing the session into July, August, and September, and crowding upon the next winter session ; and that such a course would drive students altogether from the summer schools.

Dr. McDowell, of Missouri, spoke in strong terms against the amendment. He despised the plan of some professors, who, teaching at a winter school in the South, immediately the winter session closes, bring their half-fledged brood to a Northern summer school, and there delivering a *second* course of lectures, foist their hastily-hatched students upon the medical profession. He was entirely opposed to the practice of pushing and forcing, which was becoming so rampant.

The discussion was further participated in by Drs. Shattuck, of Boston ; Austin Flint, N. Y.; Brodie, of Mich.; Palmer, of Mich.; Morse, of Maine ; Atlee, of Pa., and others.

Dr. Jno. L. Atlee, of Philadelphia, would rather increase the interval to six months. Nor did he want, as others had suggested, to leave the matter to the discretion of the professors in the different schools. His experience proved that a man never becomes a thorough and proper student of medicine until *after he has attended his first course of lectures*, for he then learns what is required, and how he should direct his studies so as to profit by them ; and as he studies in the interval between the collegiate courses, the demonstrations of the previous winter reäppear to him as he reads his text books, giving an interest to the study he could have sought for in vain before he had attended a course of lectures. He would rather have the course of instruction lengthened to eight or nine months, and have a less number of daily lectures. He wanted no student to have credit for attendance on more than one full course in one year, no matter how many regular courses he may have attended, and he moved to amend the amendment by striking out "an interval of three months, etc.," and inserting, "and no student shall be accredited for having attended more than one full course of lectures in any one year."

Dr. Palmer, of Michigan, said that many of the students he had met with voluntarily placed an interval of more than one year between their two courses of lectures. That they only became students in truth after attending one course of lectures, and they would be seen at college one winter and be missed the next, reäppearing the third winter, when they would come forward and bear off the honors of the school.

Dr. Morse, of Maine, thought the appetite for legislation was too great. He wanted no restrictions to the aspirant for medical honors. He objected to the amendment as unjust to poor students, who would be forced to lose one year waiting for a degree that might have been employed in some pecuniarily profitable manner, if they were allowed, as they often do, to study two years before attending lectures, often while working at the same time for support, and then, having saved the sum necessary to pay for their tickets, attending two courses of instruction, one following directly upon the other, thus complying with the requisites of three years study and attendance on two full courses of lectures, even though they attend two full courses in one year.

A motion of Dr. Bennett, of Dansbury, Connecticut, to lay the whole matter on the table, was lost.

Dr. Johnson, of Missouri, did not want the courses to follow too closely on each other. Apart from other considerations, such a course would crowd the student too much, and overtax his powers of physical and mental endurance. Students required time for relaxation, whether they wanted it or not, and, therefore, he was in favor of a considerable interval between the courses, and only one course in a year.

Dr. Worthington Hooker, of New Haven, Connecticut, thought there was not too much actual instruction being crowded together that was to be avoided, but rather too much lecturing, which brings different subjects in too close connection before the minds of the students, and taxes their energies too much, and, therefore, he did not want the courses crowded on each other ; nor did he want the lectures to be as crowded as they usually are. He stated that in the medical department of Yale College it was customary to make a distinction in the ability for receiving instruction, between medical students who had received the advantages of a previous classical education, and those who had not enjoyed this privilege, and that they considered classical students full one year in advance of the others, and that they made this distinction in their favor regarding the length of time required to be devoted to the special study of medicine. They only required two years' application from classical students, while they exacted three years' study from all others. He firmly believed that a difference of one year should be made, but he would prefer the course of application to be extended one year longer in each case, thus making it three and four years' study, instead of two and three, as it is now.

Dr. Atlee was here allowed to alter his amendment so it should read, "and no student shall attend a second course of lectures until a year shall have elapsed since the commencement of the first course."

Dr. Davis, of Illinois, thought that the design of the resolution had been generally misunderstood by the members of the Association. He considered that the great fault in medical education, which they were trying to discover and rectify, consisted in the laxity exhibited in exacting from each student of medicine a suitable amount of preliminary education. He wanted a previous education, and he knew that if energetic young men love the profession of medicine, and desire to become enrolled among its votaries, they would take care to obtain the necessary education, if they did not possess it; and those who did not think the profession worthy of this trouble, were much better out of it; and if the preliminary education were exacted, we should have an intelligent and educated body of physicians, and not be obliged to accept among us those of whose general literary attainments we are ashamed.

He also disliked the plan of delivering the same course of lectures to students of the first and second course. Those who had studied medicine but six months' could by no manner of means comprehend what was intended for students of three years' standing; and it was folly to demand it of them. He wished the colleges to be so reorganized, that there should be a gradation of instruction according to the advance made by the several classes of students.

Dr. Reese, of N. Y., remarked, that as the winter schools closed in March, and the summer schools could not, by resolution, begin in June, this would force students to employ in study the months of July and August, which is the general period of relaxation from labor—

and thus virtually, in a great measure, prevent graduation at the summer schools.

After some more discussion, the amendment of Dr. Atlee was adopted, when a motion was made by the opponents of the amendment, to lay the *resolution* on the table. This motion was lost, and finally, the *resolution, as amended, was adopted.*

Second resolution, adopted.

Third resolution, adopted.

The fourth resolution was amended by Dr. McCaw, requiring "that in those States where there are regular State Medical Societies, the delegates elected to be present at the examinations of candidates for the degree of M. D., in all the medical schools of the State, should be selected from the members of the State society ; in those States where there are no societies, the selection is to be made from members of the profession in good standing."

Dr. John L. Atlee wanted no representation of examiners from any except State Medical Societies, which would force those States where they did not exist, to organize State Medical Societies, and therefore he opposed the amendment, though he favored the original resolution.

Dr. Storer, of Mass., wished no restrictions to be placed on medical schools.

Dr. Mussey, of La., wanted to have a resolution passed, providing for the examination of teachers before they were elected to professorships, and to pass no men but those who were known to be favorable to the ideas of the Association, regarding medical instruction.

Here a tumultuous clamor arose, during which the amendment was withdrawn, and the previous question called for and sustained ; when the resolution was, upon call, again read, and finally adopted as originally reported

The fifth resolution gave rise to a good deal of discussion as to the propriety and the right of placing medical schools under the censorship of the State Medical Societies.

Dr. Timothy Childs, of Berkshire, Mass., stated that forty years ago he called for a board of examiners to be present at all examinations for a degree, and that he had never ceased to urge the propriety of so doing. He had never passed a student without such a supervision. He stated that he was the first man to introduce into medical colleges a Professorship on Pathology, and he was always in favor of enhancing the dignity and worth of his profession, and as long as he was able to raise his voice, he would oppose to the utmost all those who attempt to lower the standard of medical excellence, regardless of the motives that prompt them to do so.

Dr. Worthington Hooker, of New Haven, Ct., explained that Yale College, further back than forty years ago, had, of its own accord, adopted the plan contained in the resolution under consideration, and during his connection with the college, there had not been one whisper of disapprobation regarding it. There was harmony between the State Medical Society and the institution, which feels the genial effects of that harmony, which gives it its strength and position.

He thought that all medical colleges should be closely watched by the State Medical Societies of their respective States.

The resolution was adopted.

Sixth resolution adopted.

Seventh resolution adopted.

Eighth resolution adopted.

The ninth resolution was, after some little discussion, on motion, laid upon the table.

The whole report was then adopted and referred to the Committee on Publication, for publication in the forthcoming volume of Transactions.

The Committee on Nomination then reported the following appointments on Standing and Special Committees, which was received and adopted, and the nominations accepted.

Committee on Medical Literature.—Frank H. Hamilton, N. Y.; Edward Warren, Md.; Chas. A. Lee, N. Y.; J. W. C. Ely, R. I.; E. H. Clark, Mass.

On Medical Education.—Sevin T. Jaynes, Va.; Christopher C. Cox.; Md.; J. C. Bradbury, Me.; L. H. Steiner, Md.; M. A. Patten, Mo.

On the Surgical Treatment of Strictures of the Urethra—James Bryan, Pa.

On Drainage and Sewerage of Large Cities, their influence on public health—A. J. Semmes, La.; C. Boyle and C. M. Dove, D. C.

On Puerperal Tetanus, its statistics pathology and treatment—D. L. McGuigin, Iowa.

On Anæmia and Chlorosis—A. P. Ayres, Indiana.

On Alcohol and its Relations to Man—J. W. Dunbar, Mn.

On Milk Sickness—Robert Thompson, Oramel Martin, Ohio; S. W. Bemiss.

On Microscopic Observations on Cancer Cells—George W. Norris, Pa.

On Blood Corpuscles—A. Sager, Mich.

On the Hygienic Relations of Air—C. C. Cox, Md.; Chas. W. Parsons, R. I.

On Quarantine—D. D. Clark, Pa.; M. Snow, R. I.; Wilson Jewell, Pa.; E. D. Fenner, La.; J. W. Houck, Md.

On Medical Ethics—Paul F. Eve, Tenn.; J. A. Morphy, Ohio; N. L. Linton, Mo.; R. S. Powell, Ga.; B. F. Schenck, Pa.

On Tracheotomy in Membranous Croup—A. N. Dougherty, N. J.; Geo. H. Gay, Mass.; J. M. Minor, N. Y.

On the effect of Perineal Operations for Urinary Caculi upon Procreation in the Male—J. S. White, Tenn.; J. B. McCaw, Va.; R. C. Foster, Tenn.

On Mercurial Fumigations in Syphilis—D. W. Yandell, Ky.

On the Cause and Increase of Crime, and its mode of Punishment—W. C. Sneed, Ky.

On the Microscope, R. C. Stiles, Vt.

On Gangrene of the Lungs—C. L. Allen, Vt.

On the Relations which Electricity sustains to the Courses of Disease—Isaac Capelbury, Indiana.

On the Morbid and Therapeutic Effect of Verbal and Moral Influences—Alfred Hitchcock, Mass.

On the Causes of the Extinction of Aboriginal Races, more especially of the Red Men of America—George Suckley, N. Y.

To report on the practical workings of the United States law relating to the inspection of drugs and medicines—E. R. Squibb, New York, F. Bowditch, Mass., and Prof. Jos. Carson, Philadelphia.

On the Causes and Treatment of Ununited Fractures—E. K. Sanbone, and

On Diphtheria—Alonzo Clark, New York.

On the effect of Stimulants in the Treatment of Fractures—John W. Russell, Ohio.

On Dislocation of the Hip and Shoulder Joints—Moses Gunn, Michigan.

To Investigate the conditions demanded for a diploma of Doctor of Medicine in the various Medical Schools and Universities of Europe—J. Baxter Upham, Mass.; Robert Thompson, Ohio; George C. Shattuck, Mass.

In regard to the committee on the memorial to John Hunter, the following resolutions were adopted.

Resolved, That it be recommended to the different States to collect subscriptions of not more than one dollar each, from every regularly educated physician. All money so collected to be forwarded by the chairman of the committee hereby appointed, to the Treasurer of the Hunter Medical Fund in London.

Resolved, That Drs. Henry J. Bowditch, Mass; Amos Mourse, Me.; George B. Twitchell, N. H.; Charles Clark, Vt.; G. L. Collins, R. I.; Charles Hooker, Conn.; Henry D. Bulkely, N. Y.; Wm. Elmer, N. J.; John L. Atlee, Penn.: James Cowper, Del.; C. C. Cox, Md.; J. B. McCaw, Va.: Cornelius Boyle, D. C.; James H. Dickson, N. C.; H. K. Frost, S. C.; R. D. Arnold, Ga.; John Nott, Ala.; G. A. Nott, La.; W. G. Williams, Mass.; C. A. Page, Mo.; J. B. Landsley, Tenn.; R. J. Breckenridge, Ky.; J. W. Russell, Ohio; A. B. Palmer, Mich.; Calvin West, Ind.; Patrick Gregg, Ill.; D. L. McGuigin, Iowa; J. B. Douseman, Wis.; D. W. Hand, Minn.; O. Harvey, Cal.; F. G. McSparack, Ark., be a committee to collect subscriptions.

A resolution was adopted to send a copy of the resolutions passed, to each medical school in the country.

A resolution was adopted directing that a seal of the Association be given to every medical school in good standing, reserving the privilege of demanding the same upon sufficient evidence that the school had no longer claims to its possession.

It was moved, that in order to expedite business without a session next day, the sections meet at 2½, P. M., and at 4, P. M., the Association again convene to close business and receive their reports.

Closing Session.

The Association was called to order at 4, P. M., by V. P. Wilson Jewell, in the chair.

Various special committees were called upon to report, and failing to do so were discharged—other reports which had been placed on the Secretary's table were, without reading, on motion, referred to the Committee on Publication, with power to act.

The various sections were called upon for their reports, and the various papers respectively discussed by them were referred to the Committee on Publication.

The report of the Committee on Rules of Order, lying on the table, was then called for and read, and the order of business acted upon, and the articles severally adopted, and afterwards the whole report was laid on the table.

A communication was read from the Essex County Medical Society, of the State of New Jersey, containing the following preable and resolution :

Whereas, The indiscriminate sale of poisonous drugs at retail is fraught with danger to the community, be it

Resolved, That, in the opinion of this Association, it is the duty of the public authorities in the different States of the Union to pass prohibitory laws against the retailing of morphia, strychnine, prussic acid, etc., except on the written prescription of a regular practitioner of medicine, or on the personal application of a well-known citizen—and that a committee be appointed in the different States to endeavor to carry into effect the spirit of the resolution.

The paper was received and the resolution adopted.

The report was referred to the Committee on Publication, with power to act.

On motion of Dr. Davis, of Illinois, it was decided that the committee called for be appointed at his leisure by the President of the Association.

On motion, Dr. Cox, of Maryland, was requested to present at the next meeting of the Association a paper on Necrology.

Dr. A. N. Dougherty, from the Committee on Tracheotomy, reported that from the mass of facts they had gathered with regard to the result of this operation, the proportion of successful operations was 1 in 3 4-10. The statistics of cases in this country, as far as ascertained, was 17 cures out of 58 cases.

Trousseau, before 1844, had 212 cases, of which there were 40 cures and 132 deaths; after 1848, he had in 49 cases 48 deaths. From 1849 to 1858, he had at the Children's Hospital, at Paris, 466 cases, which resulted in 126 cures and 340 deaths. Another operator met with but 4 cures in 36 cases. Statistics of other operators were presented, and at the request of Dr. Dougherty, the report was referred back to the committee, with power to complete the report, and present the same at the next meeting of the Association.

Dr. Bell, of Brooklyn, offered the following resolution:

WHEREAS, Some of the papers submitted to this Association require a longer period of time for their examination than the annual meetings will admit of; therefore, be it

Resolved, That the several sections have power to refer such papers to experts, who shall determine whether they are worthy of being referred to the Committee of Publication, for publication in the Transactions.

On motion, this was laid over to the next meeting of the Association.

On motion of Dr. Chapin, that all papers which had not been disposed of by the sections should be referred by the Committee on Publication to experts, who should report back to them whether the papers were worthy of publication in the Transactions, was laid on the table.

Various rules of order and amendments to the Constitution, which had laid over from previous meetings, were again indefinitely postponed.

A communication from the Clinton County Medical Society, of Iowa, to which was appended a catalogue of the college, was read.

This communication charged the Western Reserve College with having exceeded its rights and privileges in conferring the degree of the doctorate upon one Freeman Thompson, who had not come up to the requirements of their curriculum, who had not been examined by the professors in the presence of censors, and who had not been in attendance on lectures since the session of 1848–9 a single day. It stated that at one time the Western Reserve College acknowledged the truth of the above charge, and at another time denied it.

They called the attention of the Association to this case, and desired that the Western Reserve College be refused representation in the Association. Various papers were appended to the communication, substantiating the truth of the facts mentioned.

A motion was made to refer the whole subject to a select committee of three, to be appointed hereafter by the Chairman, who should report on the same at the next annual meeting of the Association.

Dr. Davis, of Illinois, reminding the mover of the existence of a permanent Committee on Medical Ethics, created for just such purposes, the motion was altered to refer the matter to the Committee on Medical Ethics, with instructions to report at the next annual meeting, and carried.

A communication was read from the Legislature of Connecticut, stating that the Judiciary Committee had under consideration their memorial on Criminal Abortion, and asking, in order to further the matter, that a committee be appointed by the Association, to frame a bill meeting the exigencies of the case, to be presented for due consideration of the Legislature.

It was moved and carried, that the chair appoint a proper committee to draw up such a bill as would meet the views of the Association, and present the same to the Legislature of the State.

A motion was made to alter the time of meeting from June to May, so that if the Association desire to meet in 1862, in New Orleans, they could do so before the time when yellow fever occurs. This being an amendment to the Constitution, was laid over for one year.

On motion of Dr. S. W. Butler, of Philadelphia, it was resolved that this Association request the Convention of Medical Teachers to be perpetuated in connection with the American Medical Association, and meet in conference the day previous to the annual meetings of the Association, and report to the same.

On motion, the same committee appointed last year was continued, any vacancies occurring to be filled by the President.

On motion of Dr. J. L. Atlee, of Philadelphia, the chairman of the Committee on the Memorial to John Hunter was empowered to fill any vacancy which may occur in that committee.

A motion of Dr. Mason, of New York, that a committee of five be appointed to prepare rules of order for the Association, and to report them at the next annual meeting, was laid on the table.

A communication from Elmira, N. Y., was read, advising the offer of a prize for the best essay on the application of mechanical contrivances in the practice of surgery, having reference to the cure or alleviation of hernia, stricture of the urethra, stone in the bladder, fractures, dislocations, etc., was referred to the Surgical Section of next year.

A vote of thanks was passed to the retiring officers, for the efficient manner in which they had performed their duties.

A resolution was passed to the effect that the thanks of the Association are due to the Faculty of Yale College, the medical profession, and citizens of New Haven, for the elegant hospitality tendered to the Association ; and to the proprietors of the different manufactories for the generous manner in which they welcomed the delegation to inspect whatever of interest their factories embraced ; and to the railroad and steamboat companies, who have reduced their fare on the respective routes in favor of the delegates to this Association.

Various amendments to the Constitution, laid over from last year, were called up and indefinitely postponed.

Dr. Lewis A. Sayre, of New York, offered a resolution, that the Smithsonian Institute be asked to collect all the medical literature that has appeared in this country, and is scattered in various journals and periodicals, and collect it in a general library for the purposes of the profession.

On motion of Dr. Davis, of Illinois, the Association went into a Committee of the Whole to consider the report of the Committae on Medical Education, Dr. Askew, of Delaware, in the chair. An animated discussion ensued as to the extent of preparatory qualification which ought to be exacted from young men designing to commence the study of medicine, but no conclusion being arrived at, the committee rose, and reported that they had considered the above report, but had no suggestions to make to the Association, and recommended the resolutions to the Committee on Publication.

Dr. Hamilton, of Brooklyn, N. Y., moved the adoption of a resolution to devise a plan for the organization of a College, or Board of Examiners, to be called the College of Physicians and Surgeons of the American Medical Association, in order to arrest all legislation which has reference to medical schools, and to determine what shall be the prerequisites to a degree of doctor in medicine. Said college to consist of one member from each State, and to meet annually, immediately before the annual meetings of the Association.

Dr. S. W. Butler, of Philadelphia, stated that the whole plan in detail, only under a different name, had been brought before the Association at a previous meeting.

Dr. Cox, of Maryland, was exceedingly surprised at the idea of such a suggestion, and spoke against it in bitter terms, though at the same time he urged the necessity of a proper preliminary education for medical students.

Dr. Thompson, of Ohio, said that the asserted prerequisites for a degree, in reference to preliminary education, established twenty years ago, were always disregarded in his State.

After some general discussion on this subject, the Association, on motion, adjourned *sine die*.

EDITORIAL AND MISCELLANEOUS.

AMERICAN MEDICAL ASSOCIATION.

We occupy considerable space this time with the remainder of the report of the proceedings of the American Medical Association at the meeting lately held at New Haven, Conn., because we know all our readers will wish to know what was done there. Socially, no doubt, the doctors had a good time of it, but the abstract of proceedings does not enable us to form any estimate of the intellectual and scientific feast spread before them. Only when the volume of reports comes forth from the press can any one give an opinion. We are sorry to see that only three essays were handed in, and that not one of these was deemed worthy of the prize. If we are not mistaken, this is twice in succession that the prize has been withheld. This is rather a severe commentary. It shows conclusively, to our mind, a want of interest in the Association on the part of some of the best men in the profession. Nor do we wonder at this. As matters now stand, we fear the interest will diminish from year to year, and the Association is in danger of diminishing into a mere traveling ventilator of the few individuals amongst whom it happens to hold its meetings. The first honor of the Association has become a mere bauble with which to tickle the old men of the cities in which the meetings are held. A man is not made President of the Association because of his preëminence in a professional point of view; on the contrary, this strongest and only legitimate claim is ignored; and age or personal local popularity urge him into the position. This is all wrong, and we fear the Association will find it out only when it is too late.

From the report of proceedings the reader will perceive that, as usual, any amount of talk has been indulged in on the subject of "Medical Education." The Committee of the Association, through the Chairman, Dr. Reese, of New York, made a report and presented sundry labored resolutions, and the Committee of the School Convention presented its report and resolutions. Then the Association discussed and passed the last named resolutions, with amendments; and if the reader can tell us what has been really done in the premises, he can do more than we can. We have ever been the earnest advocates of reform in medical teaching, but ours is a practical, a tangible reform, for which we are laboring every day in the year. Reports and resolutions will never educate young men properly. The Association should point to a reasonable scale of progress—one to be extended as our country rises in civilization; then, with an unprejudiced eye, watch the schools and see where the greatest effort to effect the greatest amount of good is being made, and upon such heap the whole moral weight of which it is possessed. As it is, it does not require a Solomon to see that things are out of joint. That busy mole, Selfishness, is at work, and he must be caught and strangled.

Resolution No. 1 is neither more nor less than an attempt at immolation of the summer schools. There is no argument against the system of summer education; there is no proof of such schools being unable to impart proper instruction to pupils; their is nothing but a sweeping blow at their prosperity, and that blow comes really from those who teach in winter. We are no champions of the summer schools, but we see plainly that this blow is unjustly dealt, and that the Association has allowed itself to be made a cat's paw of in the business. The object will not be attained, and the Association will have her escutcheon stained.

Resolution No. 2 proposes only what all well regulated medical schools do already. No. 3 requires not less than three or four months of "hospital clinical instruction." What constitutes such "instruction?" If it is only meant to have a building full of beds, with an amphitheatre for "clinical lectures," then the devil is easily whipped around the stump, and every little inland school can come up to the requirement. But if it is required that the beds shall be filled with sick men, women, and children, and that the student shall be carried from bed to bed and be well drilled in all that pertains to the *practice* of medicine and surgery in all its various phases, then good bye to the vast majority of the schools in this country, for they must surely wither under the frown of the Association. Even the Philadelphia schools must give up the ghost, for we do know that she cannot furnish this species of instruction to her pupils. Indeed, we have had opportunities for personal observation, and we know that no city except New Orleans can come up to the proper standard—viz: *daily bedside observation of disease in all its forms.*

Resolutions Nos. 4 and 5 provide for the attendance of

State delegates at the school examinations for the degree of M. D. Yet there cannot be a sane man who does not know that outside some little State about the size of one of our Southern counties, and for any other school than one of eight or ten graduates, there could not be found the *proper* men to undertake such a task. *Proper* men would have to be well paid for the trouble and loss of time, and who is to pay them? Of course a herd of martyrs to the great cause could be found amongst those whose lives are devoted to picking the motes from the eyes of their fellow men, while their own eyes require sweeping. Such men will never control the schools of this country. They may spout reports and resolutions, but there their occupation ends.

Resolution No. 6 says that no college shall be recognized which does not require evidence of suitable preliminary education from all applicants for instruction. What constitutes the "suitable instruction?" Far be it from us to apologise for, or to foster ignorance; but the plainest dictates of common sense point us to the fact that many men with very limited preliminary education must, through a long series of years yet, be admitted into our medical schools.

A great portion of our country is yet in the condition which renders it impossible for all our young men to acquire that high degree of education which fits the physician for being most useful, and at the same time ornamental to society. In the plain nature of things, it is impossible that the "suitable education," can be had by all. Shall we then refuse our less fortunate fellow-men of the less enlightened localities the knowledge they seek at our hands because they cannot make the *best* use of it? Their people must have doctors; those who have had better opportunities will not go amongst them, and shall we refuse to give them all the information we can—all they are able to seek at our hands? Wise authors of wise resolutions! It is time, gentlemen, that you were giving the world some practical demonstration of the *great interest* you feel in the cause of medical education, and you cannot do it half so well by spouting resolutions as by going amongst our frontier people and saving them from the men you would deny instruction.

Resolutions 7, 8 and 9 are about as forcible as the foregoing. Sum them up, reader, and tell us what it all amounts to.

Again, we say, the power of the American Medical Association is a great moral power, which, if judiciously exerted, can do infinite good. If the Association is properly composed, it is but the voice of the "people" of the profession; the members are but the mouth-pieces of the people of their respective districts. What then? Let this Association keep a watchful eye over the schools, and let each member, and each constituency of each member patronize only that school which is pressing onward. Then shall we see good result, and then only. Again, the Association *must* be like Cæsar's wife. She has a code of ethics, and she must see that no man violates it with impunity. As it is, it is ignored by too many whose voices are all the time ringing for improvement in their fellow-men. For ourselves, we frankly confess that we have within us an irrepressible repugnance to being either led or driven by men whose every act but shows them to be either selfish or self-sufficient. There is real pleasure in lending ourselves to the accomplishment of a great and general good; but it is degrading to use so good a cause as a cloak under which to conceal a poisoned dagger for even the humblest of our fellow-men.

Let us have a steady and reasonable reform in the system of medical education, but let that reform be the fruit of coöperation between the schools and the members of the American Medical Association, who not only faithfully adhere to her code of ethics, but who stand ready to defend it against all who dare to use it for unholy purposes. This is what every good and true man in the profession wishes, what every good man stands ready to enforce. We have ever defended the American Medical Association from its enemies. and we are more than willing to acknowledge her as the great head of the profession of this country, but she has no arbitrary powers, and can never have any ; she has the right to say that a medical man *ought* to know how to read Latin, but she has no right to say that he *shall* know it. She has a right to bestow her highest honors on the most highly educated and ablest men in the profession, but she has no right to say that an individual inferior in each point of view shall have no seat in her hall. The people who live under a republican form of government, and know no similar power in any of its branches, will surely revolt if it is attempted to be enforced on them.

To Our Exchanges.—In response to a circular recently issued by us, we have received duplicates of several of our regular exchanges. We fear all our circulars did not reach their destination, and we take the opportunity to say that we shall be happy to exchange duplicates with all medical journals in the country, in order that we can enable an able contributor to furnish a regular digest of

American medical intelligence. To those who have already sent duplicates, we are under obligations, and we will send a duplicate of our journal in return to any point indicated.

PAINE'S INSTITUTES OF MEDICINE.—We are indebted to the most worthy author for a copy of the fifth edition of his elaborate work. While we are too strongly tinctured with the progressive spirit of Young Medicine to subscribe to all the theories of the author, we most freely acknowledge his book to be an instructive one. It evinces great research, and, in being speculative, forces the reader to think. We are under obligations to the author, and cheerfully commend his book to the reading members of the profession.

TO OUR READERS.—On account of a press of original matter, we are obliged to ask several esteemed contributors to wait a little. They shall all be heard in good time. Our desire is to please all parties interested in our journal, and in order to insure our usual variety of matter, we have added *sixteen* pages to this number. Aye! if our delinquent subscribers will only "pay up," we will send out ninety-six pages every month in the year. We offer no apology for the unusual length of Prof. Flint's report on Pneumonia, which will be completed in our September number. Real intrinsic merit and utility are impressed on every page, and it could not have been curtailed without being impaired. The valuable and richly illustrated report of Prof. Beard must command the admiration of all. Dr. B. has now established the finest Eye Clinic in the land, and we prômise our readers the fruit of his extensive observations. It will be seen that our esteemed contributor, Dr. Mordecai, of Mobile, furnishes a report of a handsome cure of vesico-vaginal fistula. We hope to retain the Doctor on our list of contributors.

HEALTH OF THE CITY.—From the latest weekly reports it appears that the general health of the city is not improving. Nothing like yellow fever yet.

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EXCERPTA.

RESEARCHES IN THE COMMUNICABILITY OF DIPHTHERIA BY INFECTION AND INOCULATION, AND THE PERIOD OF INCUBATION MANIFESTED.—Dr. F. Michel Peter, in a number of observations made by him at the Hospital des Enfans Malades and elsewhere, demonstrates this disease to be communicable by contagion. Several important facts associated with the subject are also incidentally dwelt upon by the author. The disease communicated to a second party is, according to his experience, by no means always of the same character as it presented in the first patient. Several cases are detailed where wounds or ulcerations on the surface of the body, taking on an action of the kind, were foci, from which spread numerous cases of that form where the throat becomes affected, and where croup led to a fatal result; while, on the other hand, the converse circumstances seem also to have been proved to exist.

In all cases the disease appeared most rapidly, and assumed more violence, accordingly as the patient was younger ; it very readily seized upon the mucous membrane, if previously inflamed, and was frequently found to supervene during convalescence from other diseases.

Facts clearly show, says he, the disease to be contagious; and further, that the more malignant form of the disease may communicate a more benign species, while a benign case may give rise to one of great danger—according to individuals and circumstances. We have seen that it is among infants that there is most danger from the disease, and from whatever house it occurs the children should, therefore, be removed. Among the cases related, the period of incubation has been as follows :

1 case	2 days.	2 cases	8 days.
2 “	4 “	1 “	10 “
1 “	5 “	1 “	12 to 15 “
2 “	7 “		

There have, therefore, been eight cases where the period of incubation was between two and eight days, while in only two cases did it exceed that period. The period of incubation is thus very nearly what is found in most eruptive fevers, and other diseases of like nature.

One case is alluded to by the author, where the disease seemed to be communicated to the mother by inoculation of the nipple—the infant attacked by the malady being a nursling. In this case the mother was affected with the usual symptoms of the disease, as well as the false membranes on the nipple, and swollen axillary glands.—*Gazette des Hôpitaux*, Jan. 26 and 31, and Feb. 7.

M. Hardy on the treatment of Prurigo.—The modes of treatment employed in prurigo are very numerous; but few of them are rational, and their efficacy is very doubtful. M. Hardy considers a more accurate knowledge of the causes of the disease to be necessary for its successful cure, and in this respect he has distinguished four kinds of prurigo: one depending upon hyperæsthesia of the skin; another caused by the presence of small insects belonging to the genus pediculus; prurigo resulting from the introduction into the blood of certain irritant principles; and, lastly, the prurigo which is symptomatic of certain other affections of the skin, as the itch, dartrous eruptions, etc. Against these different kinds, M. Hardy employs—1st, Internal remedies; 2d, External remedies; 3d, Hygienic measures. In prurigo depending upon hyperæsthesia of the skin, he advises anti-spasmodics and anti-neuralgics (narcotico-acrid, and opiate medicines); but if the hyperæsthesia depend upon a general state of the constitntion, this condition must first be modified; in anæmia, for example, by ferruginous preparations and tonics (quinine, etc.). He often prescribes arsenical preparations (Pearson's and Fowler's solutions, and the arseniate of soda) to modify the action of the skin, and for their anti-neuralgic effects. For external treatment, M. Hardy uses at first emollient baths of starch or gelatine, in some cases mildly alkaline. Sulphurous baths are very difficult to manage in this affection, and ought only to be used with great moderation. In partial prurigo, especially that of the vulva, the most useful application is the solution of corrosive sublimate, as recommended by MM. Trousseau and Pidoux. A solution is prepared of 10 parts (grammes) of bichlorite of mercury in 100 parts (grammes) of alcohol; the patient puts a tablespoonful of this in about a pint (half a litre) of *very hot* water, which is then used for lotions and injections. It is necessary to use very hot water, because the corrosive sublimate is much less efficacious, or even inert, if the water is cold. M. Hardy does not use any pommade except the citrine ointment. In the prurigo pedicularis, the parasite must be destroyed ; for this purpose, fumigations with cinnabar (ʒss.), alternating with sulphurous baths, may be employed. Ordinarily, the subjects of this form of the affections are exhausted by want and misery, and require especially hygienic treatment. When the prurigo has for its only cause scanty and bad food and dissipated habits, the most important part of the treatment consists in proper sanitary measures, which may be assisted by alkaline, sulphurous, or sometimes sulphuro-alkaline baths —as, water forty-four gallons, sulphuret of sodium an ounce, carbonate of soda an ounce, chloride of sodium half an ounce. Purgatives and alkaline drinks should be prescribed, as the state of the intestinal canal requires. The treatment of the prurigo which is symptomatic of another affection of the skin, must be subordinate to that of the primary disease. In some cases, however, it is necessary to relieve the itching when it becomes excessive. It is important to notice, that often, after the cure of scabies, there remains some prurigo, accompanied by severe itching ; the patients become anxious about this, think that they are not cured, and demand sulphurous baths. If their request is granted, instead of the symptoms disappearing, they are greatly aggravated by this heroic treatment. Simple baths are quite sufficient. Finally, the causes of the affection must be removed, great cleanliness enjoined, exciting and spiced food and alcoholic liquids must be prohibited.—*Rev. de Thér. Med. Chir., Feb.* 1860.

SUCCESSFUL TREATMENT OF WHOOPING-COUGH BY INCREASING DOSES OF SULPHATE OF ZINC AND EXTRACT OF BELLADONNA.—Dr. Fuller commenced his paper by calling attention to the commonly received opinion, as stated in most books on the subject, that "whooping-cough must run a certain course." He combatted this opinion by reference to the results of his own experience, and then proceeded to point out the causes which had led to its general adoption. Among these he mentioned the inefficiency of the treatment ordinarily employed, and the neglect of all measures likely to subdue the tendency to spasm, on which the continuance of the whoop depends. Dr. Fuller regarded the complaint as consisting essentially of bronchitic irritation, usually not very severe, accompanied by reflex spasm of the air-passages, and expressed his opinion that in most cases the spasmodic symptoms are those which demand our most serious attention. Not only is the spasm a most painful symptom, but it is one which may give rise to life-long mischief. His object, therefore, had always been to subdue the spasm as speedily as possible, and the practice which, until the last twelve months, he had found most successful for the purpose, was the administration of sulphate of zinc in rapidly increasing doses. Dr. Fuller then referred to the discovery he had made as to the tolerance of belladonna by children, which is recorded in a paper published in the last volume of the *Medico-Chirurgical Transactions*, and he briefly stated the facts which are there detailed *in extenso*, as to the amount of belladonna which may be given with safety, and the conditions which should be observed in its administration. The conditions he specified were, first, that the remedy should be given at least four times daily, and should be administered at first in small doses, which may be increased day by day, or on alternate days, by a corresponding amount. He pointed out that mere dilatation of the pupil need not be regarded as a bar to its administration, and stated that if the precautions just referred to are observed, the daily dose of the extract of belladonna may be safely increased up to a scruple or half a drachm without the production of any unpleasant symptoms. He then proceeded to state that he had brought these facts to bear on the treatment of whooping-cough, and from the conjoint use of sulphate of zinc and extract of belladonna, in rapidly increasing doses, had obtained results exceeding his most sanguine expectations. Rarely had he found the whoop to last above twenty-one days, and in some instances it had subsided in ten days. The mode in which Dr. Fuller proceeds, is to give the zinc and belladonna as soon as the whoop declares itself. If the attack is accompanied by much febrile excitement, and bronchitic irritation, he prescribes a cough-drop containing a drachm of antimonial wine and a drachm of ipecacuanha wine to two ounces of water, and, if necessary, applies a blister to the chest. Of the cough-drop, a larger or smaller amount is given according to circumstances. In all cases, however, the zinc and belladonna are perseveringly administered. To children under three years of age he usually begins by giving one-sixth of a grain of extract of belladonna, and half a grain of sulphate of zinc, four times daily; and to children above that age, one-quarter of a grain of extract of belladonna and a grain of sulphate of zinc. These remedies are given in solution in water, and the dose of each substance is increased by a corresponding dose daily, or on alternate days; so that the child who began by taking one-quarter of a grain of the extract and one grain of zinc at a dose, would be taking one grain of the extract and four grains of the zinc at a dose, either on the fourth, the sixth, or the eighth day, according to the rapidity with which the dose is increased. Dr. Fuller concluded by citing cases illustrative of the value of this treatment; assured the members of its safety, and urged its general adoption.—*Medical Times and Gazette.*

THE JAPANESE PHYSICIANS.—During the recent visit of the Japanese Embassy to this city, we had several opportunities of visiting the physicians, and elicited from them a slight amount of information in regard to the state of medicine in Yedo. Their knowledge has been in great part derived from the Dutch, and we are sorry to state that the physicians that we saw, and who may be taken as fair specimens of their class, did not strike us as having much acquaintance with any of the departments of medicine or surgery. The lateral operation of lithotomy, which they saw performed by the senior editor, was altogether unknown to them, but they stated that the high operation was performed in Japan, the practice of which was taught them by the Dutch. They were much interested in the administration and the effects of ether, and will take a supply of it with them on their return to their native country, with full directions as to its preparation. Amputation is not practiced by them, nor did they seem to know anything of the ligature as a means of arresting hemorrhage. They perform the ordinary operation for hare-lip, and we saw one of their servants who had been treated for this affection with perfect success. The operation of catheterism is familiar to them, and they employ the silver catheter and gum bougie. The trocar, which is somewhat different from our own, is used by them for tapping hydroceles and ascitic abdomens. They have no experience in the surgery of the eye, as in fact is the case with all the larger operations. They are perfectly conversant with the temporal, carotid, and radial pulse, and recognize the heart as the prime source of the circulation. Beyond this, the whole subject of the circulation is unknown to them, and we frequently saw a number of the servants, as well as the doctors, apply three or four small moxas to their legs in order to promote the free circulation of the blood. Vaccination was introduced into Japan about six years ago, and it was formerly the custom to insert the virus in the mucous membrane of the nose; but at the present time the operation is performed on the arm. The operations which they saw performed during their stay in this city were, amputation at the hip and of the forearm, by Professor Pancoast, and the lateral operation of lithotomy, by Professor Gross.—*North American Medico-Chirurgical Review.*

ON THE TREATMENT OF PSORIASIS: *By Dr. Müllner.*—Dr. Müllner, giving an account of Prof. Hebra's Clinical Practice, says, with regard to *internal means* in the treatment of psoriasis, that eminent dermatologist confines himself to the use of *arsenic*, having derived no benefit from courses of purgatives, cantharides, sublimate, etc., etc. He employs Fowler's, Pearson's, or Donovan's solutions, or the Asiatic pills, some of these preparations being borne better by some individuals than the others. Of Fowler's solution he first gives five drops per diem, just before eating, daily for a week, increasing the dose every week by a drop daily, until ten drops are attained: the patient, therefore, taking seventy drops per week, or one-seventh of a grain of the arsenite daily. This dose must be persisted in for a longer or shorter period, according to the condition of the psoriasis, and then progressively decreased. Of Pearson's solution he gives fifteen drops twice daily. Donovan's solution he finds easiest borne, but the least efficacious. If these preparations are carefully administered, symptoms of poisoning will rarely attend even their prolonged employment: but when such do occur, they are best met with opium. By this use of arsenic we may not infrequently cure the disease without the use of any external application, although it may have to be long employed for this. The patients need not be restricted in their food, their appetites being, indeed, increased, while they also gain flesh. But useful as arsenic is, and although it certainly has not the ill effect upon the health often ascribed to it, it should by no means be lightly used in all cases of psoriasis. Indeed, Prof. Hebra confines its use to very obstinate cases, in which the patient either cannot or will not pursue suitable local treatment. It is to be remarked that, in patients who have been treated by arsenic, where psoriasis existed, dirty, brown spots remain for a long time, but eventually disappear.

Local Treatment.—This almost always suffices. 1. *Baths* may be employed, either warm or cold, medicated or not, the object being in all cases to detach the abnormally accumulated epidermis. To be of utility for this purpose, they must be prolonged for at least two hours. They, however, cannot be relied upon as other than as an adjuvatory means. 2. *Schmierseife*[*] is an alkaline soap, prepared with one part of caustic alkali and two parts of fat, the best being made at Stuttgart. It induces free desquammation. After a prolonged bath the diseased parts are thoroughly rubbed with it, by means of pumice-stone, till they bleed, morning and evening, the soap being washed off again. This plan has the advantage of allowing the patient to pursue his occupation, but it is very slow in taking effect. A quicker mode of procedure is to rub in the soap once or twice daily, for from three to six days, wrapping up the parts in woolen coverings, and preventing the patient, notwithstanding his desire for it, from taking a bath until a day or two after the last rubbing. Owing to the painful brittleness of the skin after the bath, it should be smeared with a simple ointment, and after a few days' rest the rubbing is to be recommenced—from three to six repetitions being usually necessary. When the psoriasis exists only in small patches, these can be covered with flannels well impregnated with the soap, which are to be kept on for several days; and this is a very efficacious mode of application. 3. *Tar.* This being very disagreeable to some patients, the ol rusci and oil of cade are substituted. A constant effect of the tar is to render the urine, in six or eight hours, of an olive green or black color, emitting at the same time the smell of tar. The tar is very seldom employed alone, but the patient having had an hour's bath, is first well rubbed, till he bleeds, with the soap, put into the bath again for thirty or sixty minutes, and then anointed with tar. The procedure is repeated daily for from four to twelve weeks, according to the time requisite to cure the psoriasis. Other means of treatment, as by various ointments containing mercurial preparations, likewise succeed, but still more slowly. If we wish to get rid of the psoriasis rapidly, we should employ corrosive sublimate ʒj, to ℥j spirit of wine, either painting the parts several times a day, or leaving it on them; but it is a painful application, and only cures for a short time, the psoriasis soon returning.—*Wien Spital's Zeitung*, 1859, No. 15.

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[*] Vide Medical Times and Gazette, present volume, p. 224.

PLASTIC OPERATIONS FOR VESICO-VAGINAL FISTULE.—*Case* 1.—The Leeds Infirmary: Mr. Smith.—A woman, aged 40, was admitted with a fistula which would admit the tips of two fingers. Mr. Smith operated according to Dr. Simpson's plan, and the cure was so complete that sixteen days afterwards the bladder would retain sixteen ounces of urine at once.

Case 2.—The Nottingham Hospital: Mr. Thomas Wright.—A married woman, aged 26, was admitted in January, 1859, having been confined for the first time one month before. She stated that she had a difficult labor, and found that a week after she was unable to retain her urine. Her general health was good. On examination, an opening into the bladder was found about half an inch below the os uteri, and large enough to admit two fingers. Its longest diameter was in an oblique direction; the vagina was very narrow, and was much excoriated. Mr. Wright pared the edges of the fistula, and united them by fine iron-wire sutures upon a wire splint. The fistula was then closed. A catheter was retained, but a little urine escaped at the lower end of the wound. On the eleventh day after the operation the sutures were removed, and a small quantity of urine was seen to escape. Six weeks later the fistula was ascertained to be large enough to admit the tip of the finger. A second operation was then performed, and the third day afterwards she was attacked by scarlet fever. On the tenth day some urine escaped per vaginam, and subsequently, on removal of the sutures, the wound was found to be wholly unhealed. She was now made an out-patient.

Case 3.—The Nottingham Hospital: Mr. Thomas Wright.—A woman, aged 28, in good health, the subject of vesico-vaginal fistula. The edges of the fistula were pared and united by wire sutures on a wire splint. Perfect union followed, and she left the hospital well.—*Medical Times and Gazette.*

Remarkable Death.—An investigation took place this week in reference to the death of an unknown female, about fifty years of age, under the subjoined very singular circumstances: About one o'clock on Saturday afternoon last, a house-painter, at work on the premises 39 Woburn Place, Russell Square, noticed the deceased sitting on the door-step of No. 38, with her head resting upon one hand, and a basket of lace by her side. After the lapse of a quarter of an hour, he went to her, and, finding her pale, unable to speak, and apparently dying, he sought for a policeman. Within half an hour after the poor woman was first noticed to sit on the door-step, she had expired. She was removed to University College Hospital, where a post-mortem examination, to ascertain the cause of death, was performed by Mr. Andrews, the resident medical officer, who discovered the cause of death to be from the piercing of a fish-bone through the substance of the heart. He found eight wounds in the diaphragm and pericardium, through which, strange to say, the bone had passed before it reached the heart. On a rigid search, he discovered the blunt end of a fish-bone, one inch and three-quarters in length, as sharp as a needle, protruding through the stomach, piercing the heart. The immediate cause of death was loss of blood. The Coroner having remarked upon the singular nature of the case, the jury returned a verdict of "accidental death." *Medical Times and Gazette.*

A NEW CURE—*The Montyon Prize.*—An interesting document has just been published in the *Journal of Public Instruction*, at Paris. A poor governess, named Cléret, has discovered a supposed cure for the deaf and dumb. A commission, appointed to inquire into the matter, has reported rather favorably to the Minister of Instruction. The method employed by Mademoiselle Cléret consists in introducing sulphuric ether into the aural conduit, in doses of four to eight drops a day, for about twenty days, when the application is suspended for a short time, and again recommenced. The report declares the subject to deserve attention, and that the experiments made have clearly proved the inocuous character of the application. Mlle. Cléret discovered the supposed remedy by accident. She had been deaf for several years, and chanced to find a leaf from an old geographical work, in which it was stated that the natives of a certain country made use of various substances to cure deafness. She then commenced operating upon herself; but having no chemical knowledge, she suffered much pain and disappointment before she hit upon the substance in question. A painful interest is thrown around the matter, by the fact that the unexpected good fortune produced by the reception of the discovery—which was rewarded by the French Academy with the Montyon Prize—has unhinged the intellect of the poor governess, who is now under treatment in an asylum. Twenty-nine deaf and dumb children have been treated after the method indicated, and all have improved! though not in equal degree; and some adults have also derived considerable benefit.—*Medical Times and Gazette.*

A Case of Opium-Eating.—Dr. Kozieradzki relates a remarkable case he was called to. A lady aged 30, had been treated, when thirteen years old, for a painful affection of the heart, by abundant blood-letting and other antiphlogistic measures, without relief. She only obtained ease by taking opium, which from doses of one-eighth of a grain was gradually increased in quantity to thirty grains, so that at last two hundred grains were taken daily. Besides the opium, the bleedings were continued, having been repeated fifty times in the course of twenty years. After a while, epileptic attacks were conjoined to the cardiac affection. During the latter years she had kept on increasing the dose, and had substituted the acetate of morphia for crude opium, taking four grains several times a day, so as to consume an ounce of morphia in a month. These facts were stated to the reporter by her friends, and he saw her take two of the four-grain doses of the acetate. She had a prematurely old appearance, was deaf of one ear, and had lost almost all her teeth. The menses were scanty; but her sleep, appetite, and all the evacuations were normal. She at last found the obstacles to procuring the morphia so considerable, that she had to pass twenty-four hours amid cardiac pains and faintings without opium; and when next day her ordinary four-grain dose was brought her, she was seized with a convulsive attack, and died. The editor refers to the case of a Jewish physician who took a scruple of opium at a dose daily for many years, on account of cardialgia.—*Med. Zeit. Russlands*, 1859, No. 25.

Composition of Sewage.—The clear, supernatant part of sewage contains a large quantity of amorphous organic matter, with the filaments of various fungi. It swarms with animal life, as beaded spirulina, vibriones, and monads ; and soon after exposure to air, the higher forms of infusoria appear, as paramecium, vorticella, rotifera, etc. Besides which, it contains small particles of animal and vegetable tissues, as the fibres of cotton, wool, etc. The sediment, which is black and glutinous, consists of the remains of undigested food, as muscular fibre, husk and hair of wheat, the cells and starch of potatoe, and the tissue of cabbage and other vegetables. It also contains the products of some of the secretions, yellow, biliary matter, intestinal mucous, and the crystals of uric acid and triple phosphate from urine. As in the last case, the living animal forms are numerous ; and the vegetable growths are oscillatoria, confervæ, vegetable spores, and numerous fungi. The mineral part is composed of the *débris* of the streets, black sulphuret of iron, etc.—*Letheby.*

CHLOROFORM IN THE REDUCTION OF PROLAPSUS ANI IN CHILDREN.—Dr. Günther, alluding to cases of prolapsus in children, in which a large portion of the gut descends, and is, on account of the resistance of the child and the tenesmus, retained with difficulty, and kept up with still greater difficulty, points out the great advantage which attends, under these circumstances, the administration of chloroform. If sufficient air be admitted into the room, and ammonia and cold water be at hand, there is no danger to be feared from the induction of the anæsthesia. *Varges Zeitschrift*, band xiii, p. 90.

SOLUBILITY OF QUININE.—M. Calloud, of Chambéry, as the result of his investigation as to the substances best calculated to aid the solution of the sulphate of quinine, has come to the conclusion that this is remarkably favored by sal-ammoniac, nitrate of potass, or chloride of sodium, and especially by sal-ammoniac.—*Bull. de Thérap.*, tome lviii, p. 307.

NEW ORLEANS

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REPORT OF THE CASES OF PNEUMONIA

Observed at the N. O. Charity Hospital during the Session of 1859–60.

BY AUSTIN FLINT, M. D.,

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[CONCLUDED]

Case VIII.—*Inflammation of the entire right lung. Pericarditis. Pulmonary Abscess. Recovery and discharge from Hospital on the seventy-second day after admission.* Dennis Maher, aged 26, Irishman, laborer, admitted Dec. 2, 1859.

The patient stated that his health had not been very good for the preceding two years. He had been subject to intermittent fever and at times to cough. He was addicted to drinking whisky freely.

He dated his present illness from his having slept out of doors a week before his admission. He was seized with lancinating pain in the left side, near the nipple, and was obliged to keep the bed. He had received no medical aid prior to his admission.

On his admission he was greatly prostrated. The pulse was 130 ; respirations, 48. The physical signs showed pneumonia advanced to solidification in the lower lobe of the right lung.

Treatment: Sulphate of morphia one grain, and half a grain to be repeated every six hours ; brandy, an ounce hourly, and sustaining diet.

Dec. 3. The pulse was 128 ; respirations, 32.

Treatment: Sulphate of morphia, half a grain every six hours ; brandy, an ounce every two hours ; carbonate of ammonia, five grains every four hours, and sustaining diet.

Dec. 4. The pulse was 140 ; respirations, 36. The physical signs showed extension of the inflammation to the upper lobe. A double cardiac friction sound was heard over the whole of the superficial cardiac region.

Treatment: Sulphate of morphia, half a grain every four hours ; brandy, an ounce hourly ; carbonate of ammonia continued, and sustaining diet.

Dec. 5. Patient talked incoherently. The pulse was 136 ; respirations, 40. The cardiac friction sound continued to be marked. Treatment continued.

Dec. 7. Appearance improved. The pulse was 128 ; respirations, 40. Treatment continued.

Dec. 8. The pulse was 120 ; respirations, 44 ; He suffered from dyspnœa. The cardiac sound continued. Treatment continued.

Dec. 9. The pulse was 116 ; respirations, 48. The physical signs had show solidification of the entire right lung for several days. The cardiac friction sound still persisted. Treatment continued.

Dec. 10. The pulse was 120 ; respirations, 48. Dyspnœa continued. Treatment the same.

Dec. 11. The pulse was 120; respirations, 68. Cardiac friction sound still heard. Treatment continued.

Dec. 12. Dyspnœa continued and obliged the patient to keep the sitting posture in bed. Pulse, 120; respirations, 48.

Treatment: Sulphate of morphia, half a grain every six hours. The other measures continued.

Dec. 13. Dyspnœa not diminished. Pulse extremely feeble, and respirations 60. Resolution was going on in the affected lung. The cardiac friction sound was still heard, but was feeble. Treatment continued.

Dec. 14. The pulse, 120; respirations, 50.

Treatment continued, except that an ounce of brandy was directed every three hours.

Dec. 15. Less dyspnœa, aspect better. Pulse, 130; respirrtions, 48. Cardiac friction sound continued. Treatment the same.

Dec. 16. More dyspnœa. Pulse, 140; respirations, 48. Treatment continued.

Dec. 17. Patient still obliged to sit up most of the time. Pulse, 132; respirations 45.

Treatment continued, with the addition of the sulphate of quinine, five grains, three times.

Dec. 18. The pulse, respirations, and other symptoms, were the same.

Treatment: The morphia was discontinued. The sulphate of quinia was continued, and brandy, an ounce every four hours, with nutritious diet.

Dec. 19. Patient still unable to keep the recumbent posture. Pulse, 124; respirations, 52. Cardiac friction sound still present.

Treatment: The sulphate of morphia was prescribed in doses of a quarter of a grain every six hours. An ounce of wine every four hours was substituted for brandy. The sulphate of quinia was dicontinued.

Dec. 20. Symptoms the same.

Treatment: Wine discontinued, and the brandy resumed in doses of an ounce every four hours.

Dec. 21. Pulse, 124; respirations, 40. He was able to lie down. The cardiac friction sound continued. The physical signs showed resolution much advanced in the lower lobe of the right lung, but persisting solidification in the upper lobe. Treatment continued.

Dec. 22. Pulse, 140; respirations, 40. Treatment continued.

Dec. 24. Pulse, 122; respirations, 50.

Treatment: The sulphate of quinia, five grains, three times, was resumed; the morphia and brandy continued.

Dec. 26. Pulse, 120; respirations, 52. The cardiac friction sound had disappeared.

Treatment: Huxham's tincture of bark substituted for the quinia; wine substituted for the brandy, and the morphia continued.

Dec. 27. No material change.

Treatment: The tincture of bark and wine discontinued; brandy resumed.

Dec. 28. Pulse, 132; respirations, 66.

Treatment: Sulphate of quinia, five grains, three times, resumed; brandy and morphia continued.

Dec. 20. Patient reported better and his aspect denoted improvement. Pulse, 124; respirations, 48. Resolution of the upper lobe was progressing. Treatment continued.

Dec. 31. Pulse, 136; respirations, 51. Treatment continued.

Jan. 2, 1860. Pulse, 124; respirations, 36. Moderate diarrhœa had occurred, for which tannic acid and opium were prescribed ; brandy and sustaining diet continued.

Jan. 4. Pulse, 132 ; respirations, 48. Diarrhœa relieved.

Treatment: Morphia continued, and wine substituted for brandy.

Jan. 5. No material change. Pulse, 135 ; respirations, 48. Bronchial respiration of bronchophony continued in the upper third of the chest in front on the right side. Treatment continued.

Jan. 8. Pulse, 124 ; respirations, 36. The signs of solidification of the upper lobe of the right lung continued. Treatment continued.

Jan. 10. Pulse, 124 ; respirations, 28.

Treatment : Muriate of ammonia, a drachm three times; brandy and nutritious diet.

Jan. 14. Since the preceding date, copious purulent expectoration had taken place. Prior to this the expectoration had been small. He now raised at least a pint daily, the matter consisting almost entirely of pus. The percussion sound at the summit of the chest in front on the right side was tympanitic.

Treatment : Sulphate of morphia, brandy and nutritious diet.

Jan. 18. Pulse, 120 ; respirations, 45. The respiratory sound at the summit of the chest on the right side was distinctly cavernous. The percussion resonance in the same situation was tympanitic, and strong percussion (which was painful) elicited the crooked metal sound. The expectoration continued to be copious and purulent. Treatment continued.

Jan. 25. The expectoration of purulent matter had much diminished. The cavernous signs continued. Marked depression existed at the summit of the right side in front. The respiratory movements in the same situation, were slight. Pulse, 96; respirations, 28.

Treatment: Codliver oil and hypophosphite of soda; morphia and brandy continued.

Feb. 6. Marked improvement since the preceding date. The cavernous respiration much less marked. Pulse, 116; number of respirations not noted. Treatment continued.

Feb. 10. Improvement since the preceding date, remarkable. No febrile movement. Cough and expectoration, slight. Appetite good. Patient able to sit up much of the day, and walked down to the hospital amphitheatre to my clinical lecture. The chest at the summit on the right side notably contracted, presenting the appearance of an excavation in this situation. The respiratory sound here was feeble and broncho-cavernous in character, the percussion sound dull.

Treatment: Codliver oil, porter and good diet.

March 12. The improvement continued, and on this date the patient declared that he was well enough to leave the hospital, and was discharged.

Two weeks after his discharge he was seen by one of the class at work as a laborer on the levee.

Remarks.—The foregoing history, although condensed as much as possible, occupies considerable space; but the reader can hardly fail to regard the case as one of unusual interest. The patient presented shortly after his admission pneumonia affecting the whole of the right lung, and complicated with pericarditis. The symptoms, as seen by the pulse and respirations, threatened a fatal result day after day, and week after week; but under the use of opiates, alcoholic stimulants, and sustaining diet, the patient struggled on, the physical signs showing persistent solidification of the upper lobe of the right lung, the lower lobe having undergone resolution. At length, suddenly a copious expectoration of pus occurs. At first it was supposed that this was from a large tuberculous vomica. It proved, however, to be derived from a pulmonic abscess. Cavernous respiration succeeded the signs of solidification after this purulent discharge had taken place. The purulent expectoration gradually diminished and finally ceased. The cavernous respiration disappeared. Notable, circumscribed depression showed considerable loss of pulmonary substance in the upper lobe of the right lung. Pericardial adhesions had taken place prior to the rupture of the abscess, as shown by the cessation of the cardiac friction sound. The patient improved rapidly after the rupture of the abscess, and in a short time was able to leave the hospital and resume work as a day laborer. The case illustrates, *first*, recovery from extensive pneumonia complicated with pericarditis ; *second*, the rare termination of pneumonia in pulmonic abscess ; *third*, the much rarer occurrence of recovery under these circumstances ; *fourth*, this happy termination under efficient persisting treatment by opiates, stimulants and sustaining diet.

CASE IX.—*Inflammation of the entire right lung, complicated with Yellow Fever. Death on the eighth day after admission.*—Michael Harrington, aged 28, Irishman, admitted Dec. 16, 1859.

He stated that he had been ill for a week before his admission, and that he had vomited daily. His illness followed a debauch. The day after his admission he complained of lancinating pain in the vicinity of the right nipple. He was slightly jaundiced. The teeth and gums were covered with sordes. Pulse, 100. Vomiting continued. The physical signs showed pneumonia affecting the upper and lower lobes of the right lung.

Treatment: Sulphate of quinia, five grains three times, and the sulphate of morphia, half a grain three times.

Dec. 24. Death took place on this date. He became delirious shortly after his admission, and for two or three days before his death appeared to suffer great distress. Vomiting continued. Tenderness over the epigastrium was marked. Capillary congestion was marked. He was treated with opiates, stimulants, and sustaining diet.

The body was not examined after death. It presented the jaundiced hue which it had during life. The patient was considered as affected with yellow fever by those practically conversant with this disease. The notes of the case are less complete than those of most of the cases of pneumonia recorded.

CASE X.—*Inflammation of the upper lobe of the right lung, complicated with Delirium Tremens. Death on the seventh day after admission.*—John Dunnegan, aged 40, Irishman, laborer, admitted Dec. 29, 1859.

The patient stated that he had been addicted to drinking to excess for the past fifteen years. He entered, after a debauch, with delirium tremens. This affection ceased, it is not noted under what treatment. On Jan. 1, 1860, the physical signs showed pneumonia in the upper lobe of the right lung, and in the upper portion of the lower lobe. He had neither cough, expectoration nor pain.

Treatment: Half a grain of the sulphate of morphia every four hours; two ounces of brandy every two hours; five grains of the carbonate of ammonia three times, and sustaining diet.

Jan. 2. Pulse, 100; respirations, 24. Treatment continued.

Jan. 3. The patient was much prostrated. The teeth were loaded with sordes. Pulse, 100, and extremely feeble; respirations, 24. Treatment continued.

Jan. 4. Apparently moribund.

Treatment: Brandy, as freely as possible, and sustaining diet.

Jan. 5. Slight improvement as regards general condition. Pulse, 120, and very feeble. Tongue dry. Teeth loaded with sordes. Respirations, 20, and the inspirations spasmodic. Death took place during the night. No autopsy in this case.

Remarks.—The history of this case shows that death was by asthenia and not from the extent to which the respiratory function was compromised. This is true of a large proportion of the fatal cases of pneumonia—a fact which has an important bearing on the indications for treatment. Supporting measures are certainly indicated whenever the tendency to death is by asthenia, whatever be the seat or nature of the disease.

Appended to the record of this case is the following note: "During the last two or three weeks there has been an unusual mortality in all the wards of the hospital. This may be owing, *first*, to the overcrowding of the wards. In addition to the beds in my wards there have been usually from four to seven patients on the floor in each ward; and, *second*, to unusual coldness of the weather (it has been colder than for several years) which has led to deficient ventilation, the windows having been closed most of the time, and there being no other mode of ventilation than by means of opening the windows."

The facts referred to in this note are not to be considered in connection with the fatal cases of pneumonia occurring subsequently, as well as antecedently, to the date of the history of this case.

Case XI.—*Inflammation of the lower lobe of the right lung; complicated with delirium tremens. Death on the second day after admission.*—Patrick Duffy, aged 41, Irishman, laborer, admitted Jan. 2, 1860.

This patient had been in the hospital for eighteen months, and was discharged two months before his reädmission. It is not noted with what affection he was so long in hospital. His habits were intemperate, and he had drank to excess after leaving the hospital up to the time of his reädmission.

He stated that he took cold on Dec. 29th, and since that date, had had cough and pain in the right side. He complained of constant nausea and vomited frequently. Pulse, 152; respirations, 36. The physical signs showed pneumonia advanced to solidification in the lower lobe of the right lung.

Treatment: A grain of the sulphate of morphia, morning and evening; sinapism over the epigastrium; an ounce of brandy, every two hours, and sustaining diet.

Jan. 3. The patient had been delirious during the night so that he was strapped to the bed. The delirium still continued but was less violent. The delirium presented the characters of delirium tremens. Pulse, 148; respirations, 36. The pulse was extremely feeble. The face presented marked capillary congestion.

Jan. 4. Death took place on the morning of this date. There was no autopsy in this case.

Remarks.—The patient had had some injury or chronic affection for which he had been in hospital eighteen months, having been discharged only two months before the attack of pneumonia ; but by an inadvertency, the nature of the injury or affection which detained him so long in hospital is not stated in the record. After being discharged he resumed his habits of intemperance, drinking to great excess, until the pneumonia occurred and this disease was complicated with delirium tremens, proving speedily fatal.

CASE XII.—*Inflammation of the entire left lung ; complicated with delirium tremens. Recovery and discharge on the nineteenth day after the date of admission.*—Stephen Steiner, aged 29, German, laborer, admitted Jan. 22, 1860.

On his admission he was delirious, the delirium presenting the characters of delirium tremens. He stated that he had been drinking excessively, and had been ill for several days, but not confined to the bed. No remedies were prescribed on the day of his admission.

Jan. 23. The physical signs showed commencing inflammation in the lower lobe of the left lung. The pulse and respirations were not noted.

Treatment : A grain of the sulphate of morphia.

Jan. 24. The symptoms were not noted.

Treatment : Half a grain of the sulphate of morphia, morning and evening.

Jan. 25. The symptoms were not noted, except that diarrhœa existed for which two grains of opium, and five grains of tannic acid were prescribed.

Jan. 26. The diarrhœa continued, but lessened. He was still delirious. The physical signs showed extension of the inflammation to the upper lobe of the left lung, and complete solidification of the lower lobe. Pulse, 100 ; respirations, 36. Treatment continued.

Jan. 27 During the past night he was strapped to the bed on account of the delirium. The diarrhœa was relieved. The pulse and respirations were not noted.

Treatment : Half a grain of the sulphate of morphia, three times ; two ounces of brandy, every two hours, and sustaining diet.

Jan. 28. He was not delirious. The pulse was 80 ; respirations, 28. Treatment continued.

Jan. 30. Pulse, 70 ; respirations, 28.

On visiting the ward in the afternoon, I found that this patient had dressed himself and gone into the hospital yard. He was perfectly sane, and said that he went out thinking that he should feel better for a little exercise. No unpleasant consequences followed. Treatment continued.

Jan. 31. Pulse, 60 ; respirations, 28. The physical signs showed considerable progress in resolution of the affected lung.

Treatment : No medicine ; two ounces of brandy, three times, and full diet.

Feb. 2. Pulse, 60 ; respirations, 24.

Treatment : Syrup of morphia, brandy, and full diet.

Feb. 6. Up, and out of doors.

Feb. 10. He reported well enough to leave the hospital, and was discharged.

Remarks.—This case furnishes an instance of recovery under the unfavorable complication of pneumonia and delirium tremens. It is an interesting point in the history of the case that the patient got up and went out of doors while the affected lung was solidified, and no unpleasant results followed.

CASE XIII.—*Inflammation of the lower lobe of the left lung ; complicated with bronchitis. Recovery, and dis-*

charge on the eleventh day after admission.—Patrick Hargedon, aged 22, Irishman, laborer, admitted Jan. 24, 1860.

He stated that he had been ill for three days, and he attributed his illness to exposure to wet for several days in succession. He was seized with pain in the left side, in the vicinity of the nipple.

On his admission, he complained of no pulmonary symptoms, and the pain in the left side was slight. His general aspect and symptoms denoted typhoid fever ; the intellect was dull, the countenance expressed stolidity, and capillary congestion was marked on the face and extremities. On physical examination of the chest, a feeble crepitant rale was found at the base of the chest, behind on the left side.

Treatment : Syrup of morphia, the doses not noted.

Jan. 25. The treatment only was noted. An ounce of the sulphate of magnesia in mint water, was directed to be given in divided doses.

Jan. 26. Treatment only noted. Half a grain of the sulphate of morphia, morning and evening, was prescribed.

Jan. 27. Pulse, 80 ; respirations, 28. The physical signs showed pneumonia advanced to solidification in the lower lobe of the left lung, and bronchitis affecting both sides.

Treatment : Half a grain of the sulphate of morphia, morning and evening.

Jan. 28. Pulse, 64 ; respirations, 16. The physical signs showed progress in resolution of the affected lobe of the left lung. Treatment continued, and brandy, an ounce, three times daily, added.

Jan. 29. Pulse, 64 ; respirations, 18. The physical signs showed little solidification of the lower lobe of the left lung, but persistance of the bronchitis. Treatment continued.

Jan. 31. Pulse, 60; respirations, 20. Treatment continued.

Feb. 1. Pulse, 60; respirations, 16. Treatment continued.

Feb. 4. Patient was discharged, reporting quite well.

Remarks.—The pneumonia was associated with bronchitis, and the case presented, at first, symptoms denoting typhoid fever. Nevertheless, the disease passed through its course in a most favorable manner.

CASE XIV.—*Inflamation of the lower lobe of the right lung, traumatic and accompanied by fracture of a rib, circumscribed empyema and perforation of the chest. Patient in hospital at close of my service.*—Jean Christian, Frenchman, aged 31, was admitted Feb. 7, 1860.

He stated that he had been confined to the bed eight days. There existed fracture of a rib just below the lower angle of the scapula. He complained of pain in the side of the fracture, and there was considerable swelling at that point. The physical signs showed pneumonia advanced to solidification in the lower lobe of the right lung. He had received no medical treatment prior to his admission. The pulse was 80; respirations 40. Calomel and opium had been prescribed by the house Surgeon, and six wet cups over the affected side.

Feb. 8. Pulse, 100; respirations, 40.

Treatment: Half a grain of the sulphate of morphia twice daily, and sustaining diet.

Feb. 10. Pulse, 80; respirations, 32.

Treatment: Half a grain of the sulphate of morphia four times, and brandy ten ounces, three times. This was the treament also on the 9th.

Feb. 11. Pulse, 84; respirations, 32.

Treatment : The morphia was continued, and the brandy discontinued.

Feb. 13. Pulse, 84 ; respirations, 40.

Treatment : A third of a grain of the sulphate of morphia three times, and brandy resumed.

Feb. 16. Pulse, 84 ; respirations, 40. The physical signs showed persisting solidification over the lower lobe of the right lung. Treatment continued.

Feb. 20. Pulse, 80 ; respirations, 40. Marked dullness over the percussion existed behind below the scapula, and great feebleness of respiratory sound. Treatment continued.

Feb. 25. Sitting up. Pulse and respirations not noted. Treatment continued.

Feb. 27. Pulse, 84 ; respirations, 32.

Treatment : The morphia was discontinued ; brandy continued, and full diet.

March 2. He complained, as he had done all along, of pain in the right side. Pulse, 108 ; respirations, 32. Marked dullness on percussion below the right scapula continued, and absence of respiratory sound.

March 13. There existed a circumscribed swelling below the right scapula, and he complained as usual of pain in that situation. Pulse, 80 ; respirations, 28.

Treatment : Syrup of morphia, brandy and full diet.

March 29. The day but one previous to this date, a sense of fluctuation was evident in the circumscribed swelling, and it was opened. A large quantity of purulent matter was discharged. Air entered and escaped from the chest through the wound, with the acts of respiration. The patient was quite feeble and anæmic.

Remarks.—The date of the last record was at the close of my service. The pneumonia in this case was traumatic and followed by circumscribed empyema, with perforation of the chest. The condition of the patient rendered recovery probable.

May 3. The patient was still in the hospital, and the purulent discharge from the chest continued.

Case XV.—*Inflamation of the lower lobe of the left lung, complicated with phlebitis and obstruction of the femoral vein. Recovery of the pneumonia. Patient discharged thirty eight days after admission.*—Nimrod B. Wammack, aged 40, American, steamboat pilot, was admitted Feb. 28, 1860.

March 1. He stated that for some time prior to his present illness his health had not been good. He had suffered much from intermittent fever and syphilis. The day before his admission he had a chill, which was followed by lancinating pain in the vicinity of the left nipple. He had no medical treatment before his admission. The pulse was now 128 ; respirations, 32. The physical signs showed pneumonia advanced to solidification in the lower lobe of the left lung.

Treatment: Syrup of morphia, milk punch, and sustaining diet. This was also the treatment on the day of his admission.

March 2. Pulse, 108 ; respirations, 40. Pain in the left side was acute. Treatment continued.

March 4. Pulse, 112 ; respirations, 28.

Treatment: A dose of castor oil had been given on the previous evening. On this date five grains of the sulphate of quinia and two grains of opium were prescribed three times daily.

March 5. Pulse, 104 ; respirations, 24. The physical signs showed resolution of the solified lobe to be going on. Treatment continued.

March 6. Pulse, 92 ; respirations, 28. Treatment continued.

March 9. Pulse, 76 ; respirations, not noted.

Treatment : Two grains of the sulphate of quinia and one of opium three times.

March 13. The patient complained of pain and cramp in the left leg. Pulse, 80 ; respirations, 20. Treatment continued.

March 15. Complained still of pain in the left leg. The left foot is œdematous. Pulse, 72 ; respirations 24.

Treatment : Three grains of the sulphate of quinia three times ; two ounces of brandy three times, and full diet.

March 18. The left foot and ankle remained considerably œdematous, and the thigh was somewhat swelled. Marked tenderness existed in the tract of the femoral vein, and on deep pressure a solid cord was felt in that tract. The tenderness on pressure extended an inch above Poupart's ligament. The tenderness was such that deep pressure occasioned much suffering. On the previous day a gonorrhœal discharge returned, which had existed from June until six weeks before his admission. The solidification of the affected lobe of the left lung had nearly disappeared. Treatment continued.

March 21. The affected limb was less œdematous and painful. Pulse, 80 ; respirations, 24. Treatment continued.

March 29. The solidification of the affected lung had disappeared. He complained only of the affected limb, and this was much improved.

Remarks.—The condition of the left lower extremity was regarded as affording evidence of phlebitis affecting the femoral vein, and occasioning obstruction to the circulation in this vessel. This complication was the chief difficulty when my service ended on the 29th of March. He had recovered* from the pneumonia.

Case XVI.—*Inflammation of the lower lobes of both lungs; complicated with dysentery. Convalescence, the patient remaining in hospital when my service ended.*—John Howard, aged 32, American, sailor and laborer, was admitted March 15, 1860.

March 16. He stated that he was attacked with diarrhœa eighteen days before his admission, which, in a few days, eventuated in dysentery. He had taken remedies but did not know what they were. The dysentery still continued, the dejections being frequent, bloody and accompanied by much tenesmus. Nine days before his admission he was seized with acute lancinating pain in the left side in the vicinity of the nipple. He was greatly prostrated. The prolabia and face were somewhat livid. Pulse, 124; respirations, 32. The physical signs showed pneumonia advanced to solidification in the lower lobe of the left lung.

Treatment: Five grains of the sulphate of quinia, and two grains of opium, three times; milk punch, and sustaining diet.

March 17. The prostration was greater and the face more livid. Pulse, 144; respirations, 32. Treatment continued.

March 19. Pulse, 104; respirations, 24. The physical signs showed complete solidification of the lower lobe of the left lung, and a pleural friction sound was apparent over the lower part of the chest on the right side. Treatment continued.

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* This patient was discharged April 7, 1860, quite well.

March 21. Marked improvement. The lividity had disappeared. Pulse, 76 ; respirations, 24. The physical signs showed still complete solidification of the lower lobe of the left lung, and partial solidification of the lower lobe of the right lung. Treatment continued.

March. 23. Pulse, 72 ; respirations, 24. The physical signs showed solidification of the lower lobes of both lungs.

March 27. Improvement continued. Pulse, 60 ; respirations, 20. The physical signs still showed solidification of the lower lobes of both lungs.

Treatment : Five grains of the sulphate of quinia, three times, and full diet.

March 29. The patient was up and dressed. Pulse, 72 ; respirations, 24. The physical signs showed resolution of the affected lobes to be progressing.

Remarks.—In connection with the record on March 23, the following note was made : "The marked improvement on the day after the existence of pneumonia in the lower lobe of the right lung was ascertained, is worthy of note. The signs denote extension of the disease, notwithstanding the improvement in the general symptoms is marked." This case illustrates a rapid favorable progress of pneumonia when double, and occuring in a person much prostrated by dysentery. The patient was in hospital when my service *ended, on March 29.

CONCLUDING REMARKS.

Of the sixteen cases of complicated pneumonia, the disease was fatal in nine. More than one half of the cases of this class thus ended fatally. Let us first review the fatal cases in order to see if the nature of the complications, or other circumstances, afford an explanation of the result, and also to judge of the bearing of the complications and other circumstances on the indications for treatment.

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*He was subsequently discharged quite well.

Of the nine fatal cases, the disease was associated with pericarditis in four. In four cases, delirium tremens coëxisted. In one case, the disease was developed in connection with yellow fever ; and in one case it was connected with parotiditis and typhoid symptoms. Delirium tremens and pericarditis were combined as complications, in one case.

Circumstances of an unfavorable character, antecedent to the disease, existed in several instances. In one case the patient had been ill for a month with intermittent fever and other ailments, and the pneumonia was developed after his admission into the hospital. In one case the disease was preceded by pericarditis and pleurisy, affecting successively both sides, which had confined the patient to the bed for several months. An attack of delirium tremens preceded in one case, and in this case, gangrene of the lung occurred as a sequel to the pneumonia. In another case the patient had been discharged from the hospital two months before his admission with pneumonia, having been in the hospital for eighteen months with affections not noted in the history.

As regards the extent of lung inflamed, in six of the nine cases, either the entire right lung, or the upper and lower lobes of this lung became involved. In three cases only was the inflammation limited to a single lobe, and of these cases, in one case the affection was noted in the lower lobe of the right lung ; in another case in the lower lobe of the left lung, and in the remaining case, in the upper lobe of the right lung. It may be of interest to inquire respecting the complications in the three cases in which only one lobe was affected. In two of these cases the pneumonia was associated with delirium tremens, and in the other case it was complicated with parotiditis and typhoid symptoms.

That the fatal result was due, not to the pneumonia *per se*, but to the coëxistence of other affections and other unfavorable circumstances, is shown by the maximum of the pulse and respirations in six cases, in which these symptoms were noted. In four of these six cases, the pulse did not rise above 120 per minute, and in one case not over 100. In the remaining case it was 152 when admitted. The maximium of respirations per minute was in one case, 24 ; in one, 26 ; in one, 28 ; in two cases, 36 ; and in one case, 40.

The treatment, in all the fatal cases, was sustaining, that is, consisting of alcoholic stimulants, and concentrated nutriment. Opiates entered prominently into the treatment in most of the cases. I suppose that in view of the complications and other circumstances, the propriety of supporting and soothing measures will hardly be questioned in these cases. The only room for questioning the propriety of the treatment, so far as these measures are concerned, relates to the efficiency with which they were employed. It seems to me probable that in some of the cases they might have been pushed to a greater extent, and certainly without injury, and possibly with success.

The question may arise, whether the occurrence of complications might not have been prevented by measures of treatment. Without discussing this question, it is sufficient to say, that in nearly all of these cases the complications were already developed when the cases came under observation.

The cases in which a fatal result did not take place, are of interest as furnishing illustrations of recovery under circumstances investing the disease with a degree of danger which does not belong to it intrinsically. While the complications and other circumstances in fatal cases afford an explanation of the result; in cases not fatal they render the fact of recovery sometimes remarkable. That, in view of complications and other circumstances, the treatment would fail in averting a fatal termination, is not surprising; but that it should succeed in certain cases, occasions surprise. Is it asuming too much to say that in fatal cases the result does not militate against the propriety of therapeutical measures; but in certain cases not fatal the result affords evidence of the efficacy of these measures? I offer this inquiry not so much with reference to the present collection of cases as to a wider application; for, in the majority of these seven cases which recovered, the complications and other circumstances were not so unfavorable as in the fatal cases. But a minority of the latter cases do furnish grounds for the inquiry.

Of the seven cases in which recovery took place, in one case the disease was complicated with pericarditis; in one with dysentery; in two cases with bronchitis; in one case with delirium tremens; in one with phlebitis, affecting the femoral vein, and in one with fracture of the ribs.

Incidental circumstances of an unfavorable character existed in some instances. In one case the patient had traveled on foot for five consecutive days, sleeping on the ground each night, before being attacked. In one case the patient got up, and went out of doors during the progress of the disease. In one case the patient had suffered much from intermittent fever and syphilis. In another case the health of the patient had not been good for two years. In the case in which the disease was associated with dysentry, the latter preceded for several days the development of the former.

As regards the extent of lung affected in these cases, in two cases the inflammation extended over the entire left lung ; in one case over the entire right lung ; in one case over the lower lobes of both lungs, and in three cases it was limited to the lower lobe of the left lung.

The pulse in frequency attained to a high maximum in more instances than in the fatal cases in which this point was noted. In one case it reached 144 per minute ; in another 140, and in another 134, the same remark is true of the respirations. The maximum of the latter was in one case, 68 ; in two cases 40 ; in one case 36, and in two cases 32.

The duration of the stay in hospital in the cases not fatal varied between eleven and seventy-two days, these being the two extremes. The shortest duration from the date of the attack to convalesence was six days , the disease in this case being complicated with bronchitis.

The most remarkable case among those in which recovery took place, is the case of Maher, No. 8. In this case the inflamaticn extended over the whole of the right lung ; the disease was complicated with pericarditis, and the pneumonia eventuated in abscess. Reference to the pulse and respirations as noted in the history, during the course of the disease, will show the condition of the patient for several weeks to have been such, that a fatal termination on any day would not have been unexpected. The case may serve to show that recovery may be hoped for under most unpromising circumstances. It also, as I cannot but think, shows the importance of pursuing a supporting plan of treatment in such cases.

As regards the management, the same principles were followed in the cases which recovered, as in those which proved fatal; and the same in the complicated as in the uncomplicated cases. None of the cases seemed to claim reducing or depressing measures; on the contrary, indications for therapeutical interference, when present, appeared to point to the use of opiates, stimulants, and nutriment. In all the cases in which the disease was complicated, the associated affections were of a character to furnish additional indications for a sustaining plan of treatment.

Gramercy Park House, New York, June 2, 1860.

A CASE OF SPERMATORRHŒA.

By F. Formento, Jr. New Orleans.

The diagnosis of spermatorrhœa is by no means easy, and most generally it is surrounded by so many causes of error, that I am inclined to believe this disease is frequently overlooked. Rarely noticed, it seems to me, however, that opportunity for its observation, especially in large cities, most frequently occur, where its numerous causes abound. Among these, it will suffice to call to mind venereal excesses, the most fruitful source, undoubtedly, in man, and the baneful effects of which are even felt in the lower orders of animals; chronic inflammations of the urethra, and general debility, especially prone to occur from prolonged watching, deep thoughts or sorrows. Those who encourage lascivious thoughts are frequently subject to spermatorrhœa.

Practitioners have long made the protean symptoms developed by this insidious disease a matter of special study, simulating, as they do, in turn, affections of every organ, such as of the heart, brain, lungs, etc. Professor Lallemand, in his celebrated monograph on "Seminal Losses," mentions many instances where a failure to recognize the peculiar symptoms of this affection (even on the part of eminent physicians), have condemned the patients to prolonged and painful treatment, which only exsaperated their sufferings.

Having had occasion recently to observe a case presenting many obscure symptoms, which gave rise to important errors of diagnosis, I am induced to believe, that a chronicle, faithfully rendered, of its peculiarities, may not prove wholly uninteresting. In that case, a perfectly successful result was obtained by the simple cauterization of the prostatic portion of the urethra, as advised by Prof. Lallemand.

Errors of diagnosis in these cases may prove so *prejudicial*, and, on the other hand the treatment which may lead to rapid and certain results is so simple when well directed that the attention of the profession cannot be too frequently called to this subject. In anomalous cases special attention should be paid to the functions of the organs of generation, and this will frequently lead to a correct diagnosis.

Impressed with the above views, I have decided to publish the following case:

Spermatorrhœa, accompanied by serious symptoms of gastric disturbance, impairment of vision, etc., long overlooked, radically cured by cauterizing the urethra.

One of my friends, a fellow-student, aged about 24, of feeble constitution, nervous, sanguine temperament, was affected in June, 1856, by a pretty severe attack of gonorrhœa, which resisted treatment during nearly three months, and which was succeeded by slight gleet, with other evidences of partial stricture.

Scarcely relieved of the gonorrhœa, the young gentleman became the favored lover of a beautiful actress, and for at least six months gave himself up, without control, to the frenzy of his passion and its consequent excesses.

In May 1857, obscure abdominal symptoms showed themselves, coupled with impairment of vision. Digestion was difficult, uneasy sensations frequently complained of over the epigastrium, acidity of stomach, pyrosis, tympanitic distension of the abdomen, prostration during digestion, etc. At the same time the patient perceived with alarm that sight was affected, particularly evident in the left eye, with which he was unable to decipher his own hand writing. He suffered from "muscæ volitantes," etc., frequent headache, and a sensation of weight and tension over the brow. These were soon followed by symptoms of hypochondriasis.

Fearing to become blind, he consulted, a skillful occulist (Dr. Sperino, of Turin), who, after careful examination, discovered no apparent disease, and of course quieted his fears, attributing to dyspepsia the functional derangement of vision, and explaining the greater debility of the left eye, by an *habitual* want of exercise of that eye, which had lost its power of consonance. He advised cold lotions, and insisted upon the especial use of the left eye, at the same he prescribed a careful system of diet and tonics.

Under the influence of the above treatment the dyspepsia seemed relieved, but it soon reäppeared, presenting symptoms of all the varying shades of intensity, peculiar to nervous affections of the stomach. The derangement of vision remained about the same, but the patient, relieved from serious apprehension by the physician's opinion, paid much less attention to it. He passed the summer in the country, surrounded by the pleasures of society.

In December, he left for Paris ; a month afterwards, the other symptoms remaining about stationary, new urethral symptoms showed themselves ; frequent desires of micturition, slight pains in the perineum, a slight increase in the habitual gleet, so as to leave evidences on his linen. Besides these symptoms, erection was less frequent, and incomplete, ejaculation taking place before entire erection. The patient then consulted respectively, Drs. Langlebert and Trousseau. Dr. L. prescribed a syrup of citrate of iron, and frictions of belladonna in the perineum. These were employed for some time. In the month of March following, the dyspepsia having greatly increased, Trousseau was consulted. The distinguished Professor ordered fifteen drops tincture of nux vomica, before each meal, and "Pougues Water," a saline chalybeate.

The patient followed, for some time, this last prescription, without experiencing any material benefit either in the gastric symptoms, or any amelioration in his vision. Nocturnal pollution and involuntary emissions only became more frequent. Sleep was disturbed by horrible nightmares. The intellect could but sympathize in the general perturbation of all the functions. Memory began to fail sensibly—his disposition became melancholy and timorous. Hypochondriasis increased to such an extent as to inspire frequent thoughts of suicide.

Entirely discouraged, the patient returned to Turin in July, 1858. On arrival he was confined to bed. He was taken in the night with a severe paroxysm of fever, accompanied by intense headache, suffusion of face, agitation and delirium.

I was called to see him immediately. I found my friend in quite a critical condition. I ordered at once eight leeches to malleoli, mustard poultices, etc. A few days afterwards the cerebral congestion was entirely relieved, but convalescence was long and tedious; patient rallied slowly from his state of suffering, and probably also from loss of blood. Then he gave me a full and faithful history of his illness. I reflected maturely upon his condition, and tried to discover the primitive cause of his sufferings. Taking into consideration the little benefit which he had at any time derived from treatment, it appeared to me that these various phenomena of gastric disturbances and impairment of vision, and those which followed, were most probably due to one and the same cause. Passing in review the initiatory steps of his disease, and especially the venereal excesses in which he had indulged, spermatorrhœa presented itself to me most forcibly as the most probable cause, and my researches were of course directed in this channel. I examined the urethra—found its mucus membrane highly congested, to even present a slate or livid hue. A slight discharge still existed; the stricture however, was no longer found. The prostatic portion of the urethra, was extremely sensitive as evidenced by the acute pain experienced when the point of a catheter reached this region.

Upon questioning the patient with regard to the evacuation of thick and tenacious mucus from the urethra during defecation, he replied in the affirmative, at the same time stating that Dr. Langlebert attributed this discharge to a morbid condition of the prostate.

I was very soon enabled to examine this discharge, under the microscope, and found in it and in the urine (of which the physical characters were very variable) the presence of spermatozoa—which were fewer and smaller than in health. I sought the assistance of my friend, Dr. Vella, a distinguished microscopist of Turin, in these examinations, and his results confirmed my own.

There was now no longer any doubt in my mind of the essential cause of the anamolous train of symptoms which had been developed. That, by a successful treatment of the spermatorrhœa—if my diagnosis was correct—I should obtain a cessation of all the various symptoms, which, in my mind, were dependent upon it. I proceeded at once to employ Lallemand's classic treatment. On the 4th of August, 1858, the first application of nitrate of silver, was made to the prostate portion of urethra, taking strictly all these precautions which Mr. L. looked upon as essential to success.

The immediate results of the application were trivial, aided though, by perfect quiet, and rigid observance of an antiphlogistic diet, which were strictly enjoined. A month after the first cauterization, a great change for the better, in all the symptoms, was evident. There existed, however, still; nocturnal and diurnal involuntary emissions, but much less frequent.

A second application of caustic was now made. From this time the amendment was progressive and satisfactory. Several subsequent examinations of urethra, even during act of defecation, failed to show any further spermatozoa—their absence in every case confirmed by Dr. Vella, at the expiration of two months all the dyspeptic symptoms had disappeared ; the feebleness of vision was the last symptom to disappear. It, however, in turn, ceased.

I neglected to mention, that after the second application of caustic cold hip-baths were ordered, which were persisted in for some time.

Six months after the first cauterization the strength of the patient had complety returned; he had gained flesh, and all his functions, and especially those of generation, were apparently in perfect condition.

Such was the treatment, which in a few months, restored health and vigor to a patient, whose life previously had been a burden.

June 5th, 1860.

ON TETANUS.

Trismus Nascentium. Called by Midwives "Nine-Day Fits."

So far as my observation goes this is peculiarly a disease of the negro. In a practice extending over a quarter of a century, I have met with but a solitary case among white infants, and that was, physically, not as well cared for as the negro children of the South. I have seen no instance in mulattoes. Like most fatal diseases, it appears at times in an epidemic form. I have passed years without seeing a case, and then have known of a dozen or more in a single season. I knew a large planter to lose ten of fifteen infants from the first of January to the first of November. Another lost five of nine in four months, on two plantations separated by the Mississippi river. I knew a very fleshy negro woman to lose four infants in succession with the "nine-day fits." A change of habitation was made and she lost the fifth. On the birth of the sixth child a grain of calomel was given at a day old, and on the sixth day a poultice made of the bruised leaves of the hydro-piper, or common smart weed, was laid over the abdomen, and this child lived. The practice has been kept up on this plantation during a period of more than ten years, and only one case has occurred in that time.

Previously, many children were lost. The two gentlemen spoken of above, have adopted the rule of giving a grain of calomel to each child at a day old, and one of them informs me he has lost none during three years. Of the other, I know nothing.

This disease is thought to originate from some irritation begun in or about the cord—probably from some defect in cutting or dressing. I use a scalpel or razor, making a clean cut, and teach negro midwives to do the same. When the disease is prevalent I touch the cut surface of the cord with spirits of turpentine and give the grain of calomel, and have no cases following this plan. Whether this be preventive or not I can't say, but it is worth trying. When the disease comes on as early as the third or fourth day, a child will live three or four days ; when as late as the seventh or eighth day, it will survive only a few hours. A large majority of all the cases I have met with occurred in the winter and spring, in damp warm times—this kind of weather appearing to predispose to it. The exciting cause of this as of other forms of traumatic tetanus, is probably a poison generated chemically or vitally in the wound, analogous in its nature to strichnine, which being absorbed, and the system unable to eliminate, the patient succombs. Cleanliness is protective, turpentine is antidotal to strichnine, and is a common application to wounds to obviate lockjaw.

I have seen tetanic spasms in children and adults from teething, worms, during the cold stage of intermittent and remittent fevers, from hysteria, and, a few times, from religious excitement. These are curable, or abate spontaneously. I have never cured a case of well developed traumatic tetanus. I am not sure that I ever obviated one. A boy was brought to me in the spring of 1853, with a contused and lacerated wound on the top of the big toe. He was feverish and complained of soreness and stiffness in the muscular system generally, and especially about the nape of the neck. His master was alarmed, and communicated much of his fright to the boy. A case of lockjaw had recently died in the vicinity. The wound was four days old, and had not suppurated. I cut off as much of the horny looking contused parts as possible, made a clean cut to the bottom, sponged with tupentine, and filled the cut and wound with fifteen grains of sulphate of morphine, bound it and sent him home, with directions to lay a bed till suppuration took place, or the symptoms left. He was well in a few days. I managed a negro man who had split his patella with a broad axe, and was thought to be threatened with lockjaw, in the same manner. He got well, with a stiff leg, after a long time, and an immense suppuration.

I have seen more cases of lockjaw from burns about the chest and abdomen than from all other accidents; next from lacerations in machinery; last from amputations. What is curious, I pass years without a case, and than meet several in the same season, generally near together in time and place. I once lost two children under ten, the same week from burns, and another time two men, a white and a black, one from a wound of the scalp, the other from a slight laceration of the foot, within ten days. I have seen wounds and burns of every kind in almost every part of the body, some properly attended to, others entirely neglected, and no tetanus follow, and I have seen it from almost imperceptible scratches and pricks. I have seen more than one hundred persons run nails into their feet, of all sizes and to all depths, and never saw tetanus follow. This accident usually causes uneasiness, the hole is cleaned, enlarged, and dossils of cotton or lint saturated with turpentine thrust in ; another domestic remedy, or preventive, is a poultice made of the blood beet. This is always attainable and worth trying. When this frightful disease is once developed I know of no reliable remedy. Large quantities of intoxicating liquors were recommended by Prof. J. E. Cooke, thirty years ago ; I have heard of its being successfully used. Quinine in 100 grain doses was said to have been used during the Mexican war by the army surgeons. Dr. Samuel Emanuel, of Rodney, assured the writer that he treated a case thus in 1848 or 1849, giving it by enema when the patient was incapable of swallowing. He used an ounce in two days. The patient recovered. Opium and chloroform are powerless to cure; but afford much relief to the sufferer. On the principle, whether true or false, I say not, of "similibus similibia curantur," strichnine might be used. I knew a case of paralysis to recover under its administration.

Four out of five of all the instances of lockjaw, I have met with in a country practice have occurred from 1st of October to 1st of April ; invariably in wet weather, and usually warm for the time. The symptoms occur unexpectedly, always in the night or early in the morning. I have seen a case die in six hours from the attack ; another live twelve days, with a promise at times of recovery. I have observed no definite time after accidents for symptoms to supervene ; but think from the ninth to the fourteenth day most common. It is a terrible complaint, and it is high time the profession had a remedy. We of the country look to the city, and especially the hospital surgeons, for light on the subject. J.

SPECIAL SELECTIONS.

[Under the head of Special Selections we this time insert an interesting review of a work that should be on the table of all our readers.—ED.]

Electro-Physiology and Electro Therapeutics, showing the best Methods for the Medical Uses of Electricity. By ALFRED C. GARRATT, M. D., Fellow of the Massachusetts Medical Society. Boston: Ticknor and Fields. 1860. 8vo. pp. 708.

The first half of this volume is occupied with a history of electricity, together with facts and theories relating to it as a branch of physics, and the different modes of its application to therapeutics. We regret that this portion of the work had not been comprised within a much smaller compass; not that it is deficient in interesting and important matter, but because the work would have appeared less formidable to the medical reader, and been more generally read by the profession. In these days of book-making, a treatise devoted to a special subject, to be purchased and perused by a large number, must be of moderate size. An author is quite excusable for not appreciating this fact. He is full of his subject, and is naturally desirous to do it as much justice as possible; moreover, it appears to him so interesting and important, that he loses sight of the fact, that it is only one of many subjects whose claims on the attention of the reader are equally pressing.

Passing over the portion of the work just referred to, we have over one hundred pages devoted to affections characterized by *hyperæsthesia.* The author enters at considerable length into pathological questions, and even into the anatomy of the parts involved in these and other affections. We shall limit our attention to the therapeutical application of electricity.

With respect to *sciatica*, we quote the following summary of the author's experience :

"Finally, we may be satisfied that the much known and little understood *sciatica* occurs as an *acute* disease, whose inflammatory character requires an active antiphlogistic treatment. *Sciatica*, moreover, occurs as a truly *chronic* disease, where blisters, iodine, and electric currents are required to eradicate it ; *sciatica* may occur as a *symptomatic* disease, and that either acute or chronic, which requires active aperient medicines, together with electric currents, to restore tone and function ; *sciatica* may occur with a *rheumatic taint*, or any two or more of the foregoing forms may occur in the same case ; but, after all, *it more generally occurs as a pure neuralgia*, and simply requires good electrical treatment to cure it."

In *acute rheumatism* the author does not advise electricity ; but in the *chronic rheumatism* he considers it as highly serviceable. He says : "Chronic rheumatism of almost every sort, whether capsular and seated in the living membrane of the joints and brusæ of the tendons, or when it attacks the feet or the hands, the hips or the shoulders, the knees or shoulders, the muscles, fascia, or periosteum of the skull, vertebræ or shafts of bones—all, all of them are wonderfully amenable to the catalytic power of galvanism, or the disturbing force of Faradaism."

In cases of *atonic gout*, electricity is often highly useful ; and also in the cases of hyperæsthesia of the skin and muscles, most frequent in females, and usually reckoned among the varied manifestations of hysteria, but not exclusively confined to the female sex. In the latter cases the author bases his recommendation of electricity on the experience of others, especially of Duchenne and Briquet.

The different varieties of *neuralgia* are treated of at length, the anatomical relations of the different nerves being illustrated by wood-cuts. The painful and tender isolated points are given as stated by Valleix and others. This part of the volume will well repay a perusal. We must content ourselves with the following quotation, embodying a general statement of the author's experience as regards the application of electricity: "It is my own experience that the neuralgias met with in this country, are mostly of two quite distinct kinds—or, at least, so they may be termed—as relates to the successful adaptation of the different electric currents. If the operator cannot by tact or discrimination distinguish these at first, he will find that on applying the continuous galvanic current he will succeed admirably in some cases, but, perhaps, fail as signally in others; and not only so, but speedily aggravate the case. Now, if in this dilemma, he but just reverse the direction of the current, and try again, he will find in a very few *séances* he will find his triumph, and that in the very same case where before he failed. And electro-magnetism may also be introduced in the place of galvanism with happy results, often, almost, if not quite, equal to the former; provided, the same rules are observed as regards the direction of the current, and at the same time avoiding shocks and perturbations." * * * *

"Success in these cases depends on a smooth current with gentleness; the applying, the continuing and removing the current without change of *density*, or change of *direction* of the current in the main *is the rule here for treatment*."

It is in affections characterized by *anæsthesia* and *para-*

lysis of motion, that the application of electricity would be expected to be most efficient. Yet, if we do not mistake, the experience of most practitioners does not furnish much encouragement for expecting marked success from this remedial agent in most cases of palsy. The question then arises, is this owing to the inefficacy of the remedy, or to want of proper knowledge of the circumstances under which the remedy is to be applied? After a full consideration of paralysis in a pathological point of view, the author makes the following remarks under the head of "the electric test": "We may fairly conclude, now, that all cases of cerebral paralysis, presenting for treatment—say a few months after the causing attack—can be pretty clearly and reliably arranged, by aid of the electro-magnetic test, into *three classes*, two of which are not as yet suitable for this treatment, while the one and larger class of patients, *i. e. where the electro muscular contractlity is diminished from the healthy standard*, we may reasonably hope for a still further restoration, by the aid of electro-therapeutics, or even a complete cure, if at once treated and skillfully managed." The qualifying clause in italics, in the foregoing quotation, points to the electric test by which the practitioner is to be guided. This test is more explicitly expressed in the following quotation: "If, on testing, we find the muscles of a paralytic limb to respond, by contractions, on the application of a given *moderate current*, *more properly and powerfully* than the same set of muscles on the opposite and sound side, we may fairly conclude *that the paralysis is due to some existing brain disease*, and the lesion, whatever it may be, is of an *imitative character*, and that the disease is not ready for this treatment." This test, if found to be reliable by clinical experience, will be of great value as a guide, to the practitioner. The great point in the successful application of this, as of other means to excite palsied muscles, is to determine whether the causative conditions have disappeared or diminished, so as to admit of the resumption of the power of the will. We are glad to see that the author impresses this capital point in the treatment of paralysis, viz: the causative conditions may disappear, leaving the muscles paralyzed, until measures are taken to bring them again under the subjection of volition. They will not return to this subjection of their own accord. Means must be employed for this end Another most important point the author dwells upon, viz: the degeneration of the muscles as a consequence of inaction. In consequence of fatty degeneration, muscles after long inaction are incapable of contraction. Hence the vast importance of employing remedial agencies before this structural change ensues. Electricity must be a useful test of the ability of paralyzed muscles to contract, and thus affording evidence that degeneration has not taken place to an extent to render cases hopeless. The author gives a case illustrative of benefit from the application of electricity to hemiplegia, preceding apoplexy, and also a case of paraplegia, in which the treatment was completely successful. In *catalepsy* he states that powerful currents of electro-magnetism, quickly alternated, or the sparks, or the Leyden jar shocks break the spell, and restore the dominion of the will.

Of *local palsies* he says, "nearly the whole of this tribe of affections are amenable to well directed electrical treatments." With respect to the means of determining, in cases of facial paralysis, whether the source be within or without the brain, he mentions the point first stated by Bernard, viz: the loss of taste on the half of the tongue corresponding to the affected side. If this symptom be present, it shows an affection of the portia dura beyond the *chorda tympani.* The author, however, indicates as the most distinctive circumstance, the ability, or otherwise, to close the eye. He states that, "*a paralysis of of the orbicularis palpebrarum does not occur in a facial hemiplegia of a central organ.* Therefore, if *the eye cannot be shut*, we may rest assured that the case is one of simple paralysis of the facial nerve, and is suitable for treatment." The explanation of this is as follows: "the eye lids are kept open (when there is a paralysis of the *orbicularis palpebrarum*) because the antagonizing muscle (*levator palpebræ superioris*) *is not* dependent upon the *portio dura*, but is animated by the third nerve. On the contrary, when the third nerve is palsied, the eye is shut and cannot open of itself. But in facial palsy, when the patient is requested to shut the eye, if any motion be perceptible, the ball of the eye is only turned upward and inward, but the eye does not readily or completely close."

In cases of *lead poisoning* the author advises an early and efficient result to electro-therapeutics, adding that "this is the most potent remedy for lead palsy now known to the healing art." He introduces an illustrative case. The following rule is important to be borne in mind: "In lead palsy we may always expect to find a more or less *diminution* or *loss* of electro-muscular contraction; therefore, in doubtful cases, where the muscles of a paralytic limb simulates lead palsy, yet contract promptly or decidedly as response to the electro-magnetic or magneto-electric current, we may fairly conclude that in such a case *lead is not* the cause of the attack. The electric current is here the only reliable diagnostic test."

In cases of *rheumatic paralysis* the author states his experience in the following terms: "I have had under electrical treatment a large number of cases of rheumatic paralysis, and many with deposits, contractions and atrophy; and those of all stages, from the earliest symptoms of numbness, stiffness, and pains, to the older and atrophied cases with pseudo-anchylose and rigid contractions. Of these, my case book shows a very credible amount of restoring good accomplished, and that mainly by the power of galvanic and faradaic treatment. But the ratio of cures—of time to produce the cure (I mean a *rheumatic cure*, which is an approximation to complete restoration with some liability to recurrence)—this, in each case, is found to be *nearly* in proportion to the length of time the case had been existing, but precisely in ratio with the degree of tonic contraction and atrophy."

Paraplegia from spinal exhaustion, the author thinks is a frequent result of excessive indulgence in venereal excitement, either in sexual intercourse or by masturbation. He omits to give the results of his experience with electricity in this particular variety of paralysis.

In wasting palsy, the progressive paralysis of Cruveilhier, entitled by Duchenne, *atrophie musculaire avec transformation graisseuse*, the author expresses the belief that "the currents of galvanism or faradaism, are the only, or certainly the most powerful means known for arresting the progress of the affection, and turning the tide of adverse bodily action into a healthy direction." The long continued use of the remedy is, however, requisite.

As regards hysterical paralysis, the language of the author is very strong. He says: "I can say, speaking from experience, that nearly every case, no matter how old or how bad the case, can be cured by well-directed electro-therapeutics, aided by other needed rational medication and regimen." The question arises, is not every case curable by proper medication and regimen, exclusive of electricity? Of hysterical aphonia, the author says that he could give a list of cases successfully treated by the application of electro-magnetic currents to the throat, tongue and parts affected. He must express surprise not to find in connection with this subject allusion to the discovery of Bernard that the spinal accessory is the nerve of phonation. The so-called hysterical aphonia is to be regarded as paralysis of this nerve.

Passing to *spastic diseases*, Dr. Garratt refers to Brown-Séquard's views of the occurrence of epilepsy and other spasmodic affections in consequence of irritations starting from a centrepetal nerve ramification, in other words, from an aura emanating from some particular part of the body; and of the valve of electricity in determining the point of departure of the aura. We gather from the tenor of the remarks that if there be found a spot on the surface of the body, which is unusually sensitive to the electrical current, the aura is supposed to take its departure from this spot. Dr. Garratt does not give any account of his clinical experience on this point, and we surmise that it will not be found to be of much practical availability.

On the subject of *asthma* and *angina pectoris*, the statements of the author are remarkable. He says: "Of both these are cases that are purely nervous, and are radically cured by the skillful employment of electric currents.* * * According to my own most successful experience angina is simply to be treated as if a neuralgic spot; and if uncomplicated with organic disease, and the habits of the patient are all correct, the cure is almost certain." We regret to say that these statements diminish, somewhat our confidence in the general expressions of the author's experience in other portions of the work. Surely it may be doubted if angina pectoris exists independently of organic disease; and with respect to this terrible affection, as well as asthma, statements so positive should have been sustained by clinical facts; moreover, these subjects, in connection with such confident assertions of their curability, deserve more space than a little more than half a page.

A case of chorea is given in which a cure was effected in two months. It is not stated how long the patient had been affected prior to entering on the electrical treatment; but we would remind Dr. Garratt that in a large proportion of these cases the affection runs its career and ends in recovery after two or three months, under different methods of management, and even without any medication.

Finally, the author intimates that the paroxysms of intermitting fever may be be interrupted and the affection arrested by means of electricity. Of this he does not give any illustrative cases. We quote the directions for the treatment: "First, the *place:* the patient, we presume, is in bed, in a room where the air is dry and warm (not sitting up before the blaze of the fire, nor where a draught of wind is allowed to blow upon any portion of his body or limbs). Second, the time: just a little before the hour and minute for the invasion of the cold stage, shake, or rigors, is the time to work. Prepare the patient comfortably; wet the sponge electrodes in *very warm water*, or salt water, and see that the battery, or machine, works well; then commence *before* the *horripilatio* of yawning, stretching, sighing, "cold chills down the back," goose flesh and collapse of the features, *get the start*, and maintain it, first, by a current from the nape of the neck to the regions of the liver, stomach, and bowels ; next, up and down the back ; and then using *team-electrodes* to faradaire the surface. When the chill is broken, repeat a daily *séance*, but at different hours, to justify the invigoration."

Here we rest from our analytical reviewal; omitting the last one hundred pages of the work, which treats of electro-therapeutics in relation to midwifery, constipation, cholera, dropsy, cancer and tubercle ; also to surgery and dentistry. Our object has been to present to our readers the statements of the author's experience in the treatment of the affections to which electricity is considered as more especially applicable. In this way we have thought that we could employ to the best advantage the limited share to which our notice of the work must be restricted. In pursuing this plan, it has been necessary to forbear entering into any discussion of the positions taken by the author. It remains to express our opinion of the work in general terms.

We have already expressed regret that the work was not condensed by omitting much of the parts which relate to anatomy, physiology, and therapeutical views of pathology. We have also to express regret that the portions devoted to clinical experience, was not more extended. We confess to a feeling of disappointment in not finding in the work a full exposition of the author's own experience. His statements of the results of the application of electricity to different affections, are too brief, and in not a few instances too indefinite. What is wanted is a fair representation of deductions from an extended series of clinical observations in the different forms of disease. The author frequently refers to the numerous cases contained in his case books. We hope that he will give us the fruits of an analysis of these, showing the apparent negative, as well as positive effects of the different methods of electrical treatment. In saying this, we would not be understood to disparage the work. It bears internal evidence of the author's zeal, research and honesty of purpose. It is a work which the medical practitioner will read with interest and profit. The labor involved in the preparation of such a work is great, and we sincerely hope that Dr. Garratt will be rewarded by its extensive circulation, and that he will be encouraged thereby to make further contributions in relation to electro-therapeutics. A. F.

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EDITORIAL AND MISCELLANEOUS.

Hard Times, Ark., Aug., 1860.

Messrs. Editors—No doubt during the "dog days" your readers will be willing to allow me a few pages for other than heavy scientific effusions. I occupy the honorable post of pill roller to a country doctor, and have just overheard a little conversation, which, being not *strictly* professional, I think I may repeat. Suppose we give it the title,

PRECEPTOR AND STUDENT.

Arkansas Youth—I say, boy, where's the doctor?

Sambo—Boy, indeed! wy dont you know I has bin holdin hosses for tree generations of doctors, and for more'n thirty years I has bin called Dr. Sambo?

Ark. Youth—How the devil should I know anything about all that? where's the doctor?

Sambo—In de offis, sa, fixin of a mess of pills fur de ole man Tomsin bout ten mile down de oder side ob short creek, 'bout dyin wid de—

Ark. Youth—Oh! never mind about old man Thompson; where's the doctor?

Sambo—Dar, sa, in de offis.

Doctor—Walk in, sir; walk in.

Ark. Youth—Good morning, doctor; I hope I don't interfere with your work. I can wait till you come back, you know. I am young and strong, and have plenty of time before me, you know.

Doctor—Good morning, sir—no interference at all—can I prescribe for you, sir? Thompson is old and used to his attacks, you know, and can afford to wait. Besides, I attend him by the year anyhow, and what's the use of being in a hurry? Even if he dies, I get the same money at the end of the year.

Ark. Youth—Yes, but doctor, if he dies you won't get anything out of him next year.

Doctor—True, but you know the people will say, it didn't cost him much to die, and I'll get another in his place. This is a strange age, sir, in which we live. The political economists and statisticians are evidently succeeding in their efforts to prove the extraordinary extravagance of the people, and yet it is a self-evident proposition, that these same people are, in a medical point of view, both living and dying cheaper than ever before was known.

Ark. Youth—Well, that must be your own fault, doctor. The services of a man of your age ought to be so valuable that you should always be sure of getting their worth.

Doctor—All very well, sir, in theory; but every spring there comes a perfect horde of new-fledged doctors from the medical schools, spreading over the land like so many locusts, and if we old men did not take practice of the people by the year, and at a low figure too, we would soon find ourselves entirely supplanted.

Ark. Youth—But, doctor, the greater value of your services, you being experienced, ought to make you independent. And then, you know, they say that when the young men first come home from the schools they bring along with them what they call the "Code of Ethics," which teaches them to treat their brethren very kindly; meaning, of course, that they must not underbid them; and you know it is in the nature of a young man to be honest and liberal in all things.

Doctor—Ay, but they are not here long before they forget their Code of Ethics, and go drumming for practice as well as the oldest, until the business is ruined. For my part, if I was a despot, I'd hang every medical student, and college professor in the land.

Ark. Youth—And then what would the people do for doctors to supply the places of you old men when you wear out?

Doctor—Let such as are able go to Europe and be educated, and then the people will have doctors such as their advanced state of civilization entitles them to, and instead of hurrying about over the country night and day, rain or shine, to attend families at $2 or $3 a head per annum, we shall travel at our leisure and in comfort, and be well paid for it too.

Ark. Youth—You were educated in Europe, then, doctor?

Doctor—No, but I should have been.

Ark. Youth—Doctor, where did you get your diploma?

Doctor—In Philadelphia, of course; but I got it from a Chapman, and a Hare, and a Gibson, in their happy days, and when they and their brother professors formed such a galaxy of stars as never before shown in the medical firmament. But what the d——l makes a homespun subject like you take such an interest in medical matters?

Ark. Youth—To be plain, doctor, because I have come to the conclusion to study medicine.

Doctor—Shade of Hippocrates! another medical student!

Sambo—Woe, Bill! drat your skin, you is sure to jump wenebber massa say medical student. I do believe you is as much afeard on em as he his.

Ark. Youth—Why, doctor, you were a medical student once?

Doctor—Aye, sir, but when the supply was not more than equal to the demand; and when, too, we studied medicine for the love we bore our *profession*, and not to pursue it as a *trade*. Have you ever been to school, sir?

Ark. Youth—Well, only to such schools, doctor, as we have in our new country, where we learn arithmetic, grammar, geography, spelling and the like—with a touch of history, etc., for the big boys.

Doctor—No Latin, sir?

Ark. Youth—No, doctor; my father died when I was but fifteen years old, and the whole care of a large family fell on me, so that I have had to work hard to support them. Since his death, I have only been able to study at night, and have not been able to employ a teacher at all.

Doctor—Can't get along without Latin, sir.

Ark. Youth—Well, doctor, we have some very good practitioners in our region who never studied Latin.

Doctor—Would have been far better, sir, if they had studied it.

Ark. Youth—No doubt, doctor ; they would have been more ornamental to the profession, and would have found a knowledge of medicine more easily acquired ; but you know, doctor, there is nothing like energy and industry to overcome obstacles. You know it was quite late before Dr. Franklin studied Latin ; and, you also know, that he advances the idea that it is better to study Latin after learning the modern languages.

Doctor—Have you not seen, sir, by the late proceedings of the American Medical Association, that students of medicine shall have "a good English, classical and mathematical education, and be able to read and translate the Latin language, and have an elementary knowledge of Greek?"

Ark. Youth—Never heard of the Association before, doctor ; but does it represent the profession of the country?

Doctor—Certainly, sir, and its word must be the law.

Ark. Youth—Do they all read Latin, doctor?

Sambo—Dar ! massa scratch he head.

Doctor—How can you expect to understand the lectures you will have to attend in the large cities, unless you understand Latin?

Ark. Youth—The lectures are delivered in Latin, then, doctor?

Sambo—Dar ! scratch he head agin.

Doctor—And then, sir, how will you ever wade through the text books?

Ark. Youth—They are all written in Latin, then, doctor?

Sambo—Wo ! Bill. I do bleve you is gwine to scratch you head too.

Doctor—And your diploma (if you ever get one); how will you ever be able to read it?

Ark. Youth—Why surely, doctor, they don't write the diploma in Latin? I have always heard that a diploma was something requisite to assure the people amongst whom we attempt to practice medicine that we are qualified for the responsibilities of the position; and surely there is not a man, woman, or child in my region who could read a Latin one. Indeed, doctor, I don't think there is a physician out there who could read the first line of one. By the by, doctor, no doubt this is yours hanging on the wall; won't you read it for me;

Sambo—Massa, Mr. Tomsin send for you agin; better hurry down dar.

Doctor—Right, Sambo; throw the bags across the saddle. Keep your seat, sir, and we will resume conversation on my return.

Sambo—La! massa, here's anoder boy come, and say Mr. Tomsin dead.

Doctor—What! dead! now I *must* be in a hurry indeed.

Ark. Youth—Why hurry now, doctor? You can do no good.

Doctor—No good, indeed! Ah! my dear boy; one of the most important points in the pratice of medicine is to know how to pour words of consolation into the ear of the widow and the orphan, and—

Ark. Youth—All in Latin, of course, doctor?

Sambo—Ha! massa gone now. Poor Mr. Tomsin.

Q. E. D.

THE PROGRESS OF MEDICINE IN NEW ORLEANS.—We have often reverted to the wonderful progress in medical affairs in New Orleans since the establishment of a second school; how the number of students has rapidly increased from two to six hundred, how the system of teaching has improved, etc., etc. We have now to chronicle another step onward. Recognizing the absolute importance of clinical teaching, as urged and practiced by the New Orleans School of Medicine, the Medical Department of the University of Louisiana has secured the services of Prof. Lawson, of Cincinnati, to teach its pupils the art of practicing medicine. This is as we predicted. The New Orleans School of Medicine raised the torch and showed the path of Progress, and one by one, willingly or unwillingly, the schools must file in. But this is only the beginning of the end. The coming session of the New Orleans School of Medicine inaugurates the teaching of Experimental Physiology and Clinical Surgery, and ere long the example must be followed. The student of to-day demands practical acquaintance with his profession to the fullest extent possible, and it must be accorded him.

We congratulate Prof. Lawson on his appointment as above, and look forward with pleasure to his coming amongst us.

DR. H. D. SCHMIDT APPOINTED DEMONSTRATOR OF ANATOMY IN THE NEW ORLEANS SCHOOL OF MEDICINE.—With real pleasure we announce the appointment of Dr. H. D. Schmidt as above. Dr. Schmidt requires no eulogy at our hands: he has not only made himself, but has made himself well and most favorably known as an anatomist and microscopist equal, to say the least, to any in the land. He was for several years prosector to Prof. Leidy, of the University of Pennsylvania, and enjoys that gentleman's highest confidence. Latterly he has been connected with the Mobile Medical College, and comes thence to take his place as a laborer with us. He will be at his post early in the fall, and with a full determination to excel.

THE MEDICAL AND SURGICAL REPORTER says that we "ridicule severely the resolutions passed by the Association in reference to reforms in medical education." You make a great mistake, Messrs. Editors: the term ridicule carries with it the spirit of contempt, and our record in relation to the Association shows that we have the most profound respect for it. We ridicule nothing connected with it, but we have a right to, and do condemn the resolutions passed, because we honestly think them futile. As to our "suggesting anything better," we are every day engaged in that work in a practical way, and find that we effect more good than by spouting resolutions.

HEALTH OF NEW ORLEANS.—At this season of the year this is always an interesting topic for our readers. Through the public prints the world has been told that yellow fever is amongst us. Let us look at the official reports, take a common sense view of things, and then see how many will believe the report.

For the week ending July 15th, one death by yellow fever is reported. For the week ending July 22d, one more death is reported. For the week ending July 29th, one more death is reported. And for the week ending Aug. 5th, three deaths are reported. Thus, yellow fever would seem to have been in our midst for four weeks; and yet, during that time, and right in midsummer, with a sun shining hotter than ever was felt by "the oldest inhabitant," it does not increase, and fails to make its appearance in the Charity Hospital. But more than this, at this present moment, Aug. 15th, we have before us the mortuary report for the week ending Aug. 12th, wherein is found the report of one death from yellow fever ; showing an actual diminution of the mortality.

With all due deference, then, for those physicians who think they have seen the disease this season, we must be allowed to say that we do not believe there has been a single case of the disease. Old practitioners, of the highest respectability, and in full practice, tell us they have not seen a case; there has not been one in the Hospital (that sure index of our city), and the history of those cases said to have occurred, in their manner of appearing, carries conviction to our mind.

A word about sunstroke and apoplexy. All our readers know that throughout the South this has been the hottest summer known. New Orleans has been the recipient of her full share of solar heat, and we find it recording itself in the mortality list. Beginning on the 1st of July, we find the deaths by sunstroke set down weekly as follows : July 8th, 7 ; 15th, 42 ; 22d, 4 ; 29th, 4 ; Aug. 5th, 2. At same time the deaths from apoplexy were as follows : July 8th, 12 ; 15th, 40 ; 22d, 3 ; 29th, 7 ; Aug. 5th, 3. Now, any one who has ever paid the slightest attention to the mortality statistics of our city ; who, at the same time, will recollect the very loose manner in which diagnoses are made and recorded by medical men ; and who will not forget that apoplexy is really a comparatively rare disease, will readily agree with us that far the greater number of cases recorded as apoplexy were really sunstroke ; and we may safely say that for the week ending

July 15th, between 75 and 80 cases of sunstroke occurred! Comment is unnecessary. Such extreme heat must have been felt to be appreciated.

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EXCERPTA.

A CASE OF EXTENSIVE PARALYSIS TREATED SUCCESSFULLY BY ELECTRICITY AND "LINGISM."—*By D. Eulenberg, of Berlin.*—*Case*—Mélanie de Skeliska, æt. 15, three years ago, during a state of convalescence from typhoid fever, was twice attacked with general convulsions, without loss of consciousness. These convulsions continued for several hours, and left the patient completely paralyzed, so say the parents, in the body and limbs. For this paralysis, the baths of Wiesbaden, Wildbad, and other places, were tried without any beneficial result.

When Dr. Eulenberg undertook the management of the case, the patient was entirely unable to hold herself in a sitting posture, and when lying, her power of moving the limbs was extremely limited. The muscles of the trunk and limbs were all greatly wasted, particularly the muscles of the back; the latter muscles, moreover, refused to contract under the influence of electricity. Intelligence was unimpaired, and sensibility intact. The bowels would not act without powerful purgatives, but in other respects the health seemed to be satisfactory.

Faradization and "lingism," or Swedish gymnastics, was the treatment adopted. The paralyzed muscles were faradyzed every day for ten minutes by one of DuBois-

Raymond's induction-apparatuses, and eight weeks passed before contraction began to be provoked by this means. The gymnastic séances were of two hours' duration, twice a day, morning and afternoon. At first, the movements were extremely painful. The séances are not particularly described, but they seem to have consisted of passive movements and of regulated attempts to move on the part of the patient. The progress of the cure was extremely slow, and six weeks were spent before the power was acquired of lifting a foot from the ground ; progress, however, must have been more rapid afterwards, for in five months from the commencement of the treatment the patient left the establishment perfectly cured.

Further particulars are needed to clear up a number of doubtful points in connection with this case, but enough is said to show the advantages of the treatment adopted in a case which, under ordinary circumstances, would be regarded as well-nigh hopeless.—*Archiv fur Pathologische Anatomie*, t. vii, p. 189, 1859.

NEW METHOD OF REDUCING STRANGULATED HERNIA.—*By Dr. B. F. Richardson, of Cincinnati.*—Having been foiled in his attempts to reduce a case of strangulated hernia by the usual manipulations, Dr. Richardson writes as follows :

"Reflecting upon the mechanism in the *production* of hernia, I determined upon an expedient directly in opposition to the leading injunction of authorities. The patient was put upon his elbows and knees. Grasping the hernial tumor between my fingers and thumb, I pushed it steadily and firmly towards the inguinal ring ; *he being at the same time directed to take a full inspiration and then make a strong and continuous expulsive effort, so as to distend* *the abdominal muscles as much as possible.* Between, as well as during the expulsive efforts, the tumor was steadily pressed towards the ring. The reduction took place at the *second* effort. The time occupied was not over two minutes.'

The philosophy of this plan is that the ring is distended by the expulsive effort.—*Am. Med. Monthly*, Jan. 14, 1860.

CASE OF EXTRACTION OF A BULLOCK'S HORN INTRODUCED PER ANUM INTO THE ABDOMINAL CAVITY.—*By Mr. W. G. Hunter*, Acting Prof. of Surgery, Grant Medical College. *Case*—R. B——, a young man, an imbecile, and a resident of Coorla, was admitted into Jamsetjee Jejeebhoy Hospital, about noon of 26th April, 1859. It was reported that, in order to relieve some colicky pains to which he is subject, he had, the day previously, introduced a bullock's horn per anum into the abdomen, and that several attempts had been made by his friends to extricate the horn, but without success, in consequence of which he had been brought to the hospital. On examining the abdomen, the parietes in the right hypochondrium close under the margin of the ribs were observed to be pushed forward in a conical manner, to the extent of half to three-quarters of an inch. A hard circumscribed body could be easily felt occupying the greater part of the abdominal cavity, and passing in a direction from above downwards with a slight inclination from right to left. A slight discharge of blood and mucus was observed taking place from the anus. On introducing the index finger about two inches up the rectum, a hard, ragged, and hollow substance was detected and was made distinctly visible by an assistant dilating the gut with his fingers. The mucous lining membrane of the bowel was in a highly injected state, and covered with a gummy-looking mucus. Beyond very slight febrile excitement and a rather quick pulse (85), there were no signs of constitutional disturbance. The introduction of the horn, it was said, had been effected with but little difficulty, and the hemorrhage had been trifling, not more than four ounces altogether.

Its removal was effected in the following manner: The patient being placed under chloroform, the lower extremities were bent into the lithomy position, and the buttocks brought to the edge of the bed. An assistant then well dilated the bowel by making traction on the *sphinctes ani* with his fingers; the horn was then seized with a pair of lithotomy forceps, but, as they readily slipped, a tooth forceps was substituted. Firm traction was then made in an undulatory manner, and its extraction gradually accomplished. A wet pad and bandage were applied over the abdomen, thirty minims of tincture of opium exhibited, and milk diet ordered. During the first fifty or sixty hours, defacation was preceded by, and accompanied with, a slight discharge of dark blood; this, however, gradually, and steadily subsided, and the patient was discharged on the 6th day (1st May) perfectly well.

The horn after extraction was observed to be covered with a bloody mucus. It measures eleven inches in length, and is extremely rough from exposure; it having been picked up by the patient as it was casually lying on the roadside.—*Trans. of Medical and Physical Society of Bombay*, 1860.

On the use of Arsenic in Menorrhagia, Leucorrhœa, etc.—*By Dr. Arthur P. Burns.*—"I desire," says Dr. Burns, "to impress upon the profession my conviction of the great powers of arsenic in menorrhagia, leucorrhœa, hæmorrhage, in threatened abortion and after delivery, and excessive lochial discharge. I have been long in the habit of using it in those affections, and it has never failed in my hands to relieve the most obstinate cases. My usual plan of treatment has been, menorrhagia, if called to the patient during the hæmorrhage, to give immediately ten to twenty drops of Fowler's solution, according to the severity of the case, and repeat it in doses of ten drops every fifteen to twenty minutes, until the hæmorrhage is checked. I have never had occasion to push it to a dangerous amount. Care must be exercised in its administration, as it will entirely suspend the menstrual secretion. I then give five to ten drops, three times a day, during the menstrual period, and in the interval, three to five drops, three times a day. In leucorrhœa, I give three to five drops of Fowler's solution, three times a day, and steadily persevere in the use of it until a cure is effected ; sometimes I use injections, counter-irritation to the sacrum by blisters, etc. In either affection, if there is debility, I use Tinct. Cinchona Comp. ℥iij ; Tinct. Cantharis ʒij, M. Dose, a teaspoonful, three times a day ; sometimes add Spts. Æther Nit. and Tinct. Opii Camph."

Two cases are given in illustration.

Case 1.—An unmarried lady, æt. 23 ; anæmic ; menstruated at 15. Excessive monorrhagia and uterine leucorrhœa from the beginning, which continued in spite of all the remedies used by various physicians uninterruptedly, until she came to my care. She was a great sufferer from spinal irritation (symphathetic), neuralgia, and intense agony during menstruation. The menstrual periods were very irregular, varying from one to three weeks, the slightest exciting cause being sufficient to establish the flow, which had continued at times for weeks without intermission. I put her upon five drops of Fowler's solution, three times a day, increased to ten drops ter die during the menstrual period, vaginal injections, blisters to the sacrum, and the tonic mixture above ; a steady perseverance in the remedies for four months effected a cure. She now has no menorrhagia, no leucorrhœa, no spinal irritation, and but rarely an attack of neuralgia, which was before a constant attendant. This case would not bear iron in any form.

Case 2.—An unmarried lady, æt. 25 ; plethoric ; menstruated at 14. Menorrhagia and excessive vaginal leucorrhœa from the beginning ; the menstrual periods were irregular, and at one time the flow continued uninterruptedly for eight months, when the case came under my care. She menstruated irregularly every second or third week, with exhausting leucorrhœa in the intervals, causing an intolerable feeling of dragging down, and pain in the back upon the slightest exertion. Ordered in ten drops of Fowler's solution, three times a day, and five drops three times a day, during the menstrual period, in the interval, with cold ablutions, night and morning, to the sacrum, pubes, etc.; the treatment was continued for three months. She now menstruates every fourth week, and has no leucorrhœa.

"I may state," Dr. Burns continues, "that I have persevered for months, continuously, in the use of the remedy without any unpleasant effects. I know of no remedy so effective and so prompt in arresting hæmorrhage in threatened abortion ; it seems to suspend at once the contractions as well as the hæmorrhage. I usually give twenty drops for the first dose, and ten drops every fifteen or twenty minutes thereafter, until the hæmorrhage is checked. In hæmorrhage, after delivery, it is equally efficacious, used in the same manner and doses. In excessive or long-continued lochial discharge, in doses of five to ten drops ter die, in conjunction with the tonic mixture, it acts promptly and efficaciously. I have had cases that had resisted other treatment to yield speedily to this. In one case. in which the discharge continued for weeks after the usual time, with occasional hæmorrhages, resisting other treatment it yielded promptly to ten drops ter die, and the tonic mixture. Its *modus operandi* I am unacquainted with. That it does not act by inducing uterine contractions appears certain, as it will suspend them at the full period of gestation. I believe it to be a general hemostatic of great power, though I have never had a fair opportunity of testing its powers, and equally as efficacious in hæmoptysis, etc., as it is in menorrhagia.—*Am. Jour. of Med. Science*, Oct. 1859.

A NEW METHOD OF DISSECTION.—A great desideratum in anatomy is, to obtain an exact idea of the real position of the internal organs. This, however, is far from being the case in dissections by the common method ; since every section made on the body, rendered flabby and unelastic by death, produces a corresponding deformation ; the soft parts contract, and nothing but an approximative idea can be formed of the relative position of the exposed parts before the operation. In order to obviate this inconvenience, Dr. Pirogoff, of Russia, has had the ingenious idea of subjecting the body, before dissection, to a cold of eight degrees centrigrade (16 Fahr.) for the space of three days. By this means the body acquires a hardness like that of wood, its organs retaining, at the same time, their relative sizes, since the moisture they contain increases by congelation, and thus counteracts the contraction which the solids would otherwise undergo.

The body in this state is subjected to the circular saw, which will cut off slices of the thickness of a one franc piece with the greatest nicety, either longitudinally, transversely, or along the axis of the member. By this means Dr. Pirogoff has been enabled to publish an anatomical atlas of every part of the human body, seen under three different aspects. In order to copy out a section obtained in the manner described, Dr. Pirogoff passes lightly over the frozen alice with a warm sponge; the surface is thus thawed for an instant, but a transparent film of ice is immediately afterwards formed over it. A pane of glass with lines drawn upon it crossing each other at right angles, so as to form so many squares, is then laid on the icy film, and the surface copied out upon paper also divided into squares like the glass.

By this means the greatest precision is attained. The principle of refrigeration has been carried still further by the ingenious inventor, who by exposing a body to a cold of 18 degrees centrigade (four deg. Fahr.) reduces it to the consistency of stone, and then operates upon it like a sculptor with a chisel and mallet, laying all the viscera open without in the least degree injuring them. It is thus he has been enabled to ascertain that the cavities of the mouth, nose, the tympanum of the ear, and of those of the respiratory organs are the only ones which enclose air, and that everywhere else the surface of all parts of the body adhere immediately to the membranes enveloping the organs they contain; so that however apparently dissimilar their surface of contact may be, there is still no empty space between them.

ON TYPHUS AND TYPHOID FEVERS AS SEEN IN DUBLIN.—

By Dr. Henry Kennedy, Royal Med. and Chirur. Society.—The object of the communication was to show that while these types or varieties might, in the great majority of instances, be distinguished the one from the other, they were still but the results of a common poison. To the distinctive marks between the two varieties he had drawn attention, in the *Dublin Medical Journal*, as far back as the year 1837, three years before the appearance of Dr. Stewart's memoir. The arguments for the identity of the poison the author divided into general and special. Among the former he particularly dwelt on the fact that of different types of fever coming from the one room; such as cases with and without spots, or some with dark and others with rose spots, or the congestive, nervous, and gastric fevers all existing in one family and at the same time. Among the special arguments the details of some cases were given where petechiæ existed together with ulcerated bowels; and also cases of the same variety where the two rashes were mixed. The author also noticed the fact that intestinal hæmorrhage was at least as common in typhus as in typhoid fevers—contrary to what is usually thought. Still further the author glanced at the views now held by many on the stimulant treatment of acute disease. He observed that the extent to which these doctrines were carried elsewhere had not reached Dublin, nor did he think they would; and he considered there were many points, directly involving the general question, which yet required the fullest consideration. Though the author did not enter at all on the general treatment of fever, he spoke of a few points having a special reference to the treatment of typhoid fever. In particular he drew attention to the necessity for making a distinction between the stimulants in common use, of which wine and beef-tea were instanced. In his experience the effects of the former were much less likely to be followed by any unpleasant results than those of the latter; and this he had remarked not only in fever, but also in some of the phlegmasiæ. The cause of this difference Dr. Kennedy attributed to the difference in the constituent parts of the two fluids. To the carbonate of ammonia he also directed attention, as being in general use; and yet, in his experience, he had found it very apt to cause diarrhœa, and latterly had entirely given it up. The medicine he now placed the most reliance on was the dilute sulphuric acid; and he had arrived at this conclusion after having tried the ordinary astringents. The acid, however, was not a new remedy. With the acid he always joined local treatment, such as leeching and blistering; nor of its efficacy—when used with ordinary discretion—had he the slightest doubt, notwithstanding all that had been recently urged against it. In the last place, the author spoke of a certain class of cases of typhoid fever in which it seemed as if the poison were flitting about the system—at one time attacking the abdomen, again the chest, or the brain. In such cases he had adopted the expedient of keeping a blister open, usually on the chest, for some days; and from this plan he had seen very marked advantage.—*London Medical Times and Gazette.*

STRYCHNINE AND NICOTINE AS MUTUALLY ANTIDOTAL.—*By the Rev. Samuel Houghton.*—Believing that strychnia and nicotine might be mutually antidotal, the author was led to make the following experiments:

First experiment—Nicotine.—A bath, consisting of five ounces of water, holding dissolved five grains of nicotine, of 1012 specific gravity, was prepared, and in this mixture a frog was immersed ; in fifty-five seconds the animal became narcotized, and apparently incapable of motion ; but on being excited it was evident that life was not extinct, and the pulsation of the heart did not cease until twenty-three minutes after immersion. The anterior extremities became paralyzed first, accompanied with a quivering of the fore legs, and then the hind legs were drawn up so as to reduce the animal to the smallest possible compass. At the time of death the belly and hind legs became suffused with a pink tint, which was rapidly diffused, commencing at the thighs. After death the mouth remained closed, and the eye continued very brilliant and life-like.

Second experiment—Nicotine.—A solution of nicotine was formed, consisting of five grains of nicotine to twenty ounces of water ; and a frog immersed as before, leaving his head above the water ; in three minutes and a half he became quite paralyzed as before, placing the fore legs upon his back, with the palms upwards. Death finally ensued in forty-three minutes, with the same appearances as those described in the first experiment.

Third experiment—Strychnine.—In this experiment five grains of pure strychnine were dissolved in a minimum of muriatic acid, and five ounces of water added. A frog was placed in the bath thus formed, with the following resuts : Tetanic convulsions set in immediately upon his touching the liquid, and continued while life remained ; there was no sign of episthotonos, but strongly marked emprosthotonos. The animal was quite dead in four minutes ; mouth open, and eye closed and death-like ; the whole body stretched out and bent forwards, the back being highly arched.

Fourth experiment—Strichnine.—A bath was made of five grains of strychnine and twenty ounces of water, and a frog placed in the solution, as before. The animal became speedily convulsed, and exhibited the same symptoms as in the former case; but in this case death did not finally take place until after an interval of fifty-five minutes. The mouth was open, the eye closed and dead, and the body arched and bent forward, as before.

Fifth experiment—Nicotine and Strychnine.—In this experiment two baths were prepared, one of five grains of strychnine to five ounces of water, and the other of five grains of nicotine to five ounces of water, and the two solutions carefully mixed together. A frog was now introduced, and remained apparently without inconvenience for nineteen minutes, when the strychnine began to operate, and the first tetanic convulsion appeared; the usual appearance of strichnine poisoning continued, but with less violence than in the former experiments; after forty-seven minutes the animal was removed from the bath, and washed with cold water; he lived afterwards for upwards of twenty-four hours, exhibiting at intervals tetanic convulsions.

Sixth experiment—Nicotine and Strychnine.—Another frog was placed in a mixed bath of nicotine and strychnine of the same strength as that last described, and removed after an interval of ten minutes. After removal, in thirty-two minutes the first symptom of emprosthotonos appeared, and the convulsions continued for many hours; but the animal ultimately recovered completely, and is still in the enjoyment of health and life, after a lapse of many days.

The last two experiments appeared to Mr. Haughton conclusive as to the action of nicotine in retarding, and, in certain cases, completely counteracting the effects of strychnine. In the fifth experiment, a frog had lived for forty-seven minutes in a mixture of two solutions, of which one would have destroyed life in four minutes ; the other would have produced paralysis in one minute, and destroyed life in twenty-three minutes ; and yet in the mixture, the animal had lived for forty-seven minutes, and afterwards for twenty-four hours.

In the sixth experiment, the frog immersed in a similar mixture of the poisons for ten minutes had ultimately recovered ; the effect of the strychnine being completely obviated by the action of the nicotine.

Mr. Haughton also relates some experiments upon warm-blooded animals, which are not very conclusive ; and, what is more to the purpose, he quotes Dr. O'Reilly's case (*v.* 'Abstract,' XXIX, p. 287), in which tetanus from strychnia was successfully treated by the bold administration of tobacco.—*Proceedings of the Royal Irish Academy*, November 29th, 1859.

PHLEGMASIA DOLENS.—*Obstetrical Society of London.*—Dr. Druitt said that phlegmasia dolens was usually treated of as an obscure and intricate disease, but that most of the obscurity arose from the unfortunate circumstance that it had been too much treated as if it were a perpetual disease solely, and had not been viewed in its true relation to other diseases ; whereas it was by no means confined to the puerperal state ; and, instead of being altogether *sui generis*, it was but one specimen of a very large and natural pathological family. Certainly the author of the paper before the society had not fallen into the former of these errors ; on the contrary, the Society had to thank him for a very copious and interesting collection of cases occurring from various causes besides parturition; but, as regards the true pathological place of the disease, the author seemed to have just missed seeing it. It appeared to him (Dr. Druitt) that it was impossible to regard phlegmasia dolens otherwise than as one member of that class of pathological exudations which includes also the diffuse inflammation of the areolar tissue the phleginonous erysipelas, carbuncle, and the effects of snake-bite, which last the author had alluded to, although he did not seem to appreciate the fact that it afforded a complete solution of the phenomena of the disease under consideration. A poison introduced into the areolar tissue, whether locally or through the medium of the circulation at large, was all that was required to explain the phenomena. What was there more wonderful in phlegmasia dolens than there was in the fact that a small portion of decaying lobster introduced into the stomach sufficed to cover the skin with the large white blotches of urticaria? or that a small portion of virus introduced under the cuticle will produce the enormous swelling of erysipelas or diffused inflammation? or, again, that a snake-bite will cause a whole limb to swell suddenly and enormously? The analogy of these cases to phlegmasia dolens is absolutely perfect. In one case, which the speaker published in the "Surgeons' Vade-Mecum," a gentleman had a small, old sinus in the ham; this festered; the matter putrefied; swelling ensued, spreading upwards as well as downwards, till the limb was of enormous size, tense, and firm; symptoms of general pyæmia followed, and death. Now in this, as in the other analogous examples, could it be said that obstruction of the veins or lympathics was the essential condition of the disease? Surely not; for obstruction of veins and lymphatics might exist without phlegmasia dolens—and exudation, which was the essence of phlegmasia dolens, might exist without venous obstruction. It was quite a return to the pathology of the sixteenth century to assert that obstruction was the cause of a true pathological exudation. Obstruction must always produce its mechanical effects, such as œdema; but there was no obstruction which could account for the production of phlegmonous erysipelas or carbuncle, and the assumption of obstruction as the cause of phlegmasia dolens was unnecessary. Solidification of the blood in the veins occurred in erysipelas as in phlegmasia dolens, but only as a concurrent effect. The true pathology of the disease was that which the author had touched, without grasping—namely, that a poison, having been imbibed from a wound or ulcer, produced not merely coagulation of blood in veins, but that yet undefined change in the relation of the blood and tissues which caused a peculiar exudation. No one, in the present state of pathology can pretend to define that condition absolutely; but if any one thing appeared at the present day certain, it was that not mere obstruction, or any other change in what was called the "action" of blood-vessels and absorbents, could generate a true pathological exudation, to which class the disease under consideration belongs.

Dr. Barnes thought that the paper was an excellent example of the advantage of seeking for illustration of what might appear a special subject in the wide range of general pathology, Obstetric science had lost much from the narrow exclusive manner in which it was cultivated. While the author deserved praise for his research, he (Dr. Barnes) could not, however, but feel surprise that no reference had been made to the valuable essays of Mr. Henry Lee and Dr. Mackenzie. The essay of Dr. Mackenzie especially must be regarded as the most admirable and complete contribution to the pathology of phlegmasia dolens yet published. The speaker did not agree in the suggestion that hæmorrhage disposed to phlegmasia dolens by favoring imperfect contraction of the uterus, and the consecutive propagation of the coagula formed in sinuses to the pelvic veins. Hæmorrhage acted, in his opinion, by increasing the absorbing function. The treatment by ammonia referred to by the President, he had found the most useful. Since the researches of Dr. Mackenzie this plan was established on a sound pathological basis.

Dr. Fox, in reply to the objections of Dr. Graily Hewitt, said he could not disallow the lympathics a share in the disease. Would Dr. Hewitt explain the difference in the character of the swelling in obliteration of the inferior vena cava and the innominate vein (for there was a difference ; in the latter case the swelling was different from œdema, and more like phlegmasia dolens), except upon the fact that the lympathics were obliterated in the case of the innomate ? Then, again, Dr. Rigby's well-known case (*Medical Gazette*, 1835), where no disease but that of the lympathics existed, was surely sufficient to establish the participation of the lympathics. In regard to the theory of the production of phlegmasia dolens, Dr. Hewitt's explanation would only account for the puerperal cases, and not those of cancer, phthisis, dysentery, ulceration, etc. The other objections of importance came from Dr. Druitt, who denied the mechanical cause of the disease. Well, that answer could be made to such cases as that described in the paper, where a cancerous tumor pressed on the iliac vessels, and where phlegmasia dolens appeared, with great pain ? but when the tumor descended into the pelvis, and got up behind the bladder to other side, the pressure being removed, the phlegmasia dolens went at once, with the pain. With regard to the other point which Dr. Druitt said the other had missed—namely, the pathological state, the exudation into the cellular tissue—it was far too important a subject to be introduced into the paper cursorily, because it involved all the late views of Virchow, but it should be dealt with specially. All discussion turned upon the use of fibrin in the economy. Virchow, Zimmerman, Cappie, and Simon believe it to be a result of change of cellular tissue (an early condition being fibrogen), and brought to the blood by the lympathics. That fibrin was not excrementitious seemed evident from the following: 1. Its use in the economy and capability of organization. 2. Its mode of production—namely, result of elaborative (digestive and glandular) act, and oxidation of albumen (Gardner). 3. Its chemical composition, unlike waste products (ex. urea). If fibrin were excrementitious, albumen must be so too. 4. Its relation to the pale corpuscles, being increased or decreased in direct ratio with them. 5. Its relation to connective tissue, as shown by Liebig; hence it is the pabulum of areolar tissues. 6. In the lower animals we see corpuscles existing before fibrin in the blood; in the articule series we get fibrin, and with it the colorless nucleated cell: and seeing always that the pale corpuscles keep in the blood-stream outside—*i. e.* next the walls—it seems not unlikely, indeed certain, that the pale corpuscles are related to the tissues outside in preparing the fibrin for the connective tissues. Where areolar tissue is, there are lymphatics, and *vice versâ;* hence there must be some close connection. It seems that when the arterial blood reaches the areolar tissues, the latter draw upon it for pabulum, and the excess is removed by the lympathics (which keep the balance of nutrition correct). Obstruct, as in phlegmasia dolens, the lymphatic circulation, and you get hypertrophy of the cellular tissue and gelatinisation of the areolæ. As to Dr. Druitt's assertion that the vessels are not at all concerned, that was a new pathology. How would he explain a simple case of hypertrophy from congestion the result of pressure? The author had not made a microscopic examination of the juices exuded from the limb in phlegmasia dolens.—*London Medical Times and Gazette.*

PHYSIOLOGY OF WIDOWHOOD—*To the Editor of the Medical Times and Gazette.*—SIR: For some time past my attention has been attracted to a very curious form of hereditary transmission of physical peculiarities which I think worth while to lay before the Profession, that more extensive and more accurate investigation than I can accord it may, if not exactly, at least proximately determine its value as an influence in the production of disease.

Lord Morton bred a hybrid from a chestnut mare and male quagga—the hybrid was quagga-like, and even the foals subsequently produced from the mare by a black Arabian sire were "much more plainly barred across the legs than is even the pure quagga." Now here is an instance of the positive transmission by the female of one species of the physical peculiarities of the male of another species, with whom she had bred, to her offspring by a subsequent union with a pure male of her own species. This in itself is not a little remarkable and worthy of investigation by those who have opportunity amongst mule breeders and others; but, further, I have made many inquiries amongst those interested in the pure breeds of all kinds of cattle, sheep, dogs, poultry, pigeons, etc., and they universally declare that if a high-bred female once breeds with an inferior male, even of her own race, she will never produce pure offspring; though she always subsequently breed with males of the highest cast. Thus if a thorough-bred mare have a colt whose sire is a half-bred horse, though she subsequently breed with only through-bred horses, her foals will never prove thorough-bred. An instance was lately mentioned to me much in point—where a very pure bred setter bitch produced her first litter after a cur dog, and though subsequently put to some of the best setter dogs in the kingdom, her puppies were never pure or worth keeping. We know that greyhound breeders cross with a bull-dog to give their greyhounds courage and tenacity of purpose, and that it does this for many generations; but that is effected by always breeding from the progeny with greyhounds, subsequently to the first bull-dog cross. It would be curious to inquire whether the greyhound bitch subsequently breeding with pure greyhound, her progeny would show a similar transmission of the courage of the bull-dog, as we have seen take place in the markings of the quagga, and the worthless peculiarities of the cur.

> "Quo semel est imbuta recens servabit odorem
> Testa diu."—HORACE.

Now we only too well know that many diseases are capable of hereditary transmission, some more, some less; and I cannot but think the facts I have alluded to lend some color to the thought, that even as physical peculiarities, so may diseases be transmitted by the female, though herself, and the actual father of her second progeny, as well as all their ancestors, may be free from any taint.

In other words, it would seem far from improbable that if a woman married, and had a child by a man who died the subject of any well-marked hereditary disease, and she subsequently married and had children by her second husband, her first husband's disease would have a tendency to show itself in her second family, even though neither she nor her second husband, or their ancestors, were subject to the malady. I presume that one point would be necessary to this, viz: that at the time of impregnation by the first husband, he was then either absolutely suffering from, or very strongly predisposed to, the disease transmitted. The investigation of this very curious and interesting question would incidentally throw much light on how far constitutional peculiarities and diseases, such as gout, tubercle, insanity, etc., may be communicated by seminal transmission to the female, and be of considerable importance in determining many medical and social questions, as the first husbands of widows, who re-marry and bear children, have frequently died of the severer forms of disease well known to be capable of hereditary transmission. I commend the whole subject to the careful consideration of those of your readers who have time and opportunity to make those accurate observations which alone can determine the true value of all such questions. A. E.

Tunbridge Wells, June 19.

Extreme Heat has been experienced in several of our western cities. At St. Louis, Mo., during the week ending July 23d, the thermometer ranged from 100 to 106 degrees in the shade. On Saturday, the 21st, it rose to 107 degrees, about 20 degrees hotter than it was at the same time in this city, where it was quite too hot for comfort.—*Cent'y.*

ATTEMPT TO PROCURE VACCINE MATTER FROM THE ORIGINAL SOURCE—*Production of true Variola.*—In the year 1836, Dr. John C. Martin, then a practitioner of medicine in Attleborough, Mass., conceiving that the sometimes imperfect protection afforded by the vaccine disease arose from a deterioration in the matter used, inserted into the udder of a cow lymph taken from a pock upon the body of a man who died of variola. Subsequently, matter derived from the cow was inserted into the arm of about fifty persons. This was at the middle of October. Presently, one Babbitt, being among the first vaccinated, began to exhibit unlooked-for symptoms which alarmed his family. Physicians were summoned ; and after examination and comparison of opinions, the patient was declared to have the true small-pox. Then all those who had been vaccinated from the same source inquired anxiously what was to be their fate. The vaccinations (the sequel will show that inoculation was the more proper term) had been made on successive days up to Babbitt's illness, and others soon began to be affected. The physicians in the neighborhood again assembled, and recommended that due precautions should be taken against the spread of small-pox, as probably all who had received the virus from Martin must suffer unmodified variola. Dr. M. became at once the most unpopular of men ; although, as I learn from cotemporary informants, one of whom was himself a sufferer, the experiment had not been entered upon without consultation, which relieved him from undivided responsibility. Excitement and consternation prevailed, sustained by the consecutive occurrence of new cases. Business was suspended ; the panic of fear magnified the danger, and no man could see where it would end. Dr. M. stoutly contended that the phenomena were merely the manifestations of genuine kine-pox in its pristine force; but we have the testimony of Dr. Sylvester Fuller, that the disease was variolous. Dr. Fuller was an an accomplished physician; had served in the army, where he had seen much small-pox; and his evidence, in concurrence with other physicians of the time, is conclusive. Two hospital houses were established, to which many of those attacked were removed. Four months elapsed before the last patient was discharged. Not all who received the virus were sick; and of those who suffered, three died.

The affair quite ruined Dr. M. He went to the West, returned insane, and remained some time in a hospital. He is still living, mildly crazed, but not incapable of intelligently following some simple occupation.

The senior Dr. Manchester, of Pawtucket, then in active practice, received some of the crusts from Dr. Martin. They are represented to have been thinner, and differing in appearance from the normal vaccine scab, and were not used.

As the experiment of transmitting small-pox virus through the system of the cow has, at sundry times, been successfully accomplished, the question arises, What was the cause of D. M.'s failure and mishap? The conclusion seems unavoidable, that the matter taken from the cow was not the modified virus, but identical with lymph inserted from the human subject. Doubtless it had lain in the wound unabsorbed and undigested, and after a festering process quite local, the eschars were removed, and the non-vaccine matter re-introduced in pseudo-vaccination.

"Take thou some new infection to thine eye,
And the rank poison of the old will die,"

was the philosophy of Shakspeare. Unfortunately, Dr. M.'s experiment was in conflict with the injunction. The preservation of the virus unspoiled, while deposited in the cow's udder, is quite consistent with the well-known persistent character of the contagion.—*Boston Medical and Surgical Journal*, 23d February, 1860.

ALLEGED TRANSMISSION OF CONSTITUTIONAL SYPHILIS BY MEANS OF VACCINATION.—Dr. Guzenot, in a thesis lately submitted to the Faculty of Medicine of Paris, records two cases of constitutional syphilis *transmitted by vaccination.* These observations, due to Dr. Lecocq, Surgeon-Major of Marines, had already been addressed by him to the Academy of Medicine, but not having been published, are now reproduced in full :

Observation 1. On the 4th of May, 1858, a private of marines, 25 years of age, was revaccinated in accordance with the regulations of the service. Three punctures were made on each arm. The vaccine virus had been furnished by satisfactory vessicles on the arm of another soldier, who had had, three months before, an indurated chancre—a fact which was only ascertained on subsequent inquiry. Examined eight days afterwards, the pustules were found to have absorbed ; one of them became inflamed a short time afterwards, and became the seat of an ulceration which gradually assumed all the characters of an indurated chancre. It had a hard base, and the lymphatic glands in the corresponding armpit became enlarged. At a later period, constitutional symptoms manifested themselves, which left no doubt of the nature of the case.

Observation 2. On the same day (May 4), another marine, 25 years of age, was revaccinated with matter obtained from the same source as in the former case. Phenomena, precisely similar to those observed in the first case, made their appearance—namely, abortion of the punctures, specific ulceration of one of them, glandular affections in the axilla, and, at a later period, well-marked symptoms of constitutional syphilis.—*Gazette Hebdomadaire.*

With regard to the possibility of transmitting secondary syphilis by means of vaccination, we cannot do better than lay before our readers an extract from Mr. Simon's valuable Report on Vaccination, submitted to the Board of Health, and presented to Parliament:

"A few respondents (apparently on theoretical grounds) think that a vaccinator who improperly derives his lymph from an impure source, may thereby invaccinate some second and unintended specific infection. A very few even believe they have seen instances of the kind. But, generally speaking, opinion and experience declare themselves in the opposite sense, and render it in the highest degree probable that, in the isolated instances to which reference is made, there may have operated those sources of fallacy to which I have adverted. Not only the very much greater volume of statement, but a really immense weight of authority, is on the side of those experimental results which I quoted to you. Men of the largest and oldest consulting practice in the United Kingdom—men who are believed to have seen every variety of disease and accident to which the human body is liable—our leaders who have taught medicine and surgery to the mass of the profession—physicians and surgeons of our largest metropolitan and provincial hospitals in England, Scotland, and Ireland—physicians who have specially studied the diseases of infancy—surgeons who have specially studied the inocculative diseases—pathologists of distinguished insight and learning—have never in their experience 'had reason to believe or suspect' an opposite conclusion to that of M. Taupin's experiments. In the alphabetical series of opinions you will read familiar British names, dozen by dozen, standing beside assertions of this kind. You will read that equally negative in Paris has been the vast experience of Chomel and Moreau, and Rayer and Ricord, and Rostan and Velpeau; equally negative at Vienna, that of Hebra, Oppolzer, and Sigmund. Obviously, then, one at least of two conclusions is inevitable. Either it is the case that—even with irrepressible carelessness as to the source of lymph—vaccination (so long as in any sense of the word it is vaccination) cannot be the means of communicating any second infection. Or else it is the case that, in the world of vaccinators, care is almost universally taken to exclude that possibility of danger. To the public perhaps it matters little which of these conclusions is true. Analogies and experiments, as I have shown, speak almost decidedly for the former. But at least there can be not objection to superfluous precaution. And, in reading the answers written by gentlemen personally engaged in vaccination, you will be glad to observe how many of them, in referring to a possible slovenliness in this matter, speak of it as something which cannot be conceived of any decent practitioner."

To these remarks we shall merely add, that the above cases afford an illustration of the impropriety of vaccinating with the matter obtained from adults, as additional sources of danger and fallacy are thereby introduced.—*Edinburg Medical Journal.*

CHLOROFORM IN PUERPERAL CONVULSIONS.—*To the Editor of the American Medical Times*—Sir : The four following cases of puerperal convulsions were treated in a somewhat different manner from the routine of the books, and as the result has been favorable they may present some points of interest. Most authors agree, I believe, in recommending depletion in this disease, continuing it even "*ad deliquium animi.*" There are doubtless many cases demanding this plan of treatment, but the question arises : Is not blood-letting viewed as the *sine qua non* to successful result, and is the disease not viewed as a *simple apoplexy*, and treated strictly as such without sufficiently studying the concomitant circumstances, and duly considering the supersensibility of the spinal system of nerves?

Case 1 was a young woman, aged 17, about to be delivered of her first child. The labor was natural and promised a speedy termination, when a pain ushered in a convulsion ; with every pain a convulsion occurred until all consciousness ceased. *Treatment*—I applied cold to the head, administered chloroform on the threatened advent of every fit, in order to modify its severity, and prevent any lesion to the brain ; hastened the delivery of the child and placenta. The convulsions ceased after expulsion of the contents of uterus. Twelve hours after birth of child the mother realized, for the first time, the event. Recovery rapid.

Case 2.—A woman of decided nervous temperament, the mother of several children, called upon me to relieve her severe headache and partial blindness. I found her between the seventh and eighth month of pregnancy, restless, wakeful and apprehensive of impending danger. I applied cold to the head, administered assafœtida and Hoffman's anodyne, put the feet in mustard water. After an interval of twelve hours, finding no abatement, and believing convulsions impending, I reviewed the forty-eight cases of puerperal convulsions reported by "Lewis," and resolved to bleed "*ad deliquium animi.*" There was temporary relief, succeeded in a few hours, by an increase of symptoms, and a convulsion accompanied with stertorous breathing and total unconsciousness; administered chloroform by inhalation until the spasm abated; repeated it whenever much restlessness was observed, or a renewal of convulsions anticipated; ordered an enema of assafœtida, also administered assafœtida by mouth. Consciousness returned in eight hours with a cessation of all unfavorable symptoms, and by a persistent course with sedatives, she went her full time and gave birth to a healthy child.

Case 3.—A delicate Irish girl in her seventh month, overfatigued herself on a very hot day. I found her complaining of blindness, specks floating before her eyes, intense headache, etc. Ordered ice to head, and mustard to feet, with sedatives internally, which relieved her. After the interval of a day I was again called. The same remedies again gave relief for a few hours only, when convulsions occurred with increasing severity and frequency until all consciousness ceased. *Treatment*—Chloroform, and internally tr. veratri viridis and assafœtida. After the tongue became much lacerated and the power of deglutition stopped, I administered by enema a strong decoction of ergot, and dilated the os uteri, when a contraction of the uterus was followed by the expulsion of the fœtus. Insanity succeeded for a few days followed by convalescence.

Case 4.—A lady, in her ninth month of pregnancy, was seized with a convulsion preceded by headache and partial blindness, etc. Having been similarly affected with a former child, and relieved, she trusted to her memory for treatment without consulting me. The convulsions soon became frequent and severe, attended with much laceration of the tongue and stertorous breathing, succeeded by entire insensibility. *Treatment*—Administered chloroform, ruptured membranes, dilated the os uteri, administered a strong *infusion* of *ergot* by *enema*, and when pains became manifest, turned the child and delivered by the feet. Convulsions ceased after the womb was emptied. Insanity continued for ten days, when convalescence was established. C. S. STILLWELL, M.D.

SAG HARBOR, N. Y.

THE confidence inspired by the presence of Paré, enabled the garrison of Metz to keep the city until the gallant army that lay around it perished beneath its walls. The heroic courage of Desgenettes, in attending upon and touching the infected, and even inoculating himself with the plague to show its non-contagiousness, restored the prostrate energies of the French army in the East, under Napoleon, which had sunk, utterly disheartened, beneath the mere name of this terrible scourge. After the bloody battle of Eylau, Napoleon, in passing, found the eminent Larrey standing in the snow, under a slight canopy of branches, engaged in dressing the wounded; on again passing the same place, at the same hour, next day, he saw the indefatigable surgeon still occupied as before. Thus had Larrey spent twenty-four hours uninterruptedly, except in the few minutes snatched for a hurried repast! What finer display of benevolent zeal is upon record?—*Dr. W. C. Roberts' Eulogium of Medical Science.*

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A CASE OF CRYPTORCHIDISM—WITH REMARKS.

BY ANTHONY PENISTON, M. D.,

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The vast wards of the Charity Hospital—that great school of clinical research—present daily to the curious and observing, new subjects for investigation and research. Not that I would attach to rare and exceptional cases the most importance, for, in general, their very isolation renders them of little practical utility. The ordinary diseases are far more important to the physician, and cannot be too much studied. It is only by constant observation that the practitioner can acquire that skill and consummate tact which is sometimes necessary to distinguish the nice shades and symptoms of disease. But when a case, though of rare occurrence, is invested with a peculiar interest from the topics to which it gives rise, it becomes a proper subject for a medical journal, and as such I present the accompanying case of cryptorchidism, or congenital absence of testes from the scrotum.

The cases of imperfect migration, or descent of the testicle, are exceedingly rare, while as objects of physiological interest they deserve to be attentively studied. From the time of Ambroise Paré down to the present day, the books furnish many instances of congenital malformation of the testes, and their absence from the scrotum. But then, those records extend through several centuries, and few observers have had an opportunity of seeing more than one or two cases of the kind. Dr. Marshall states that in the examination of more than 10,800 recruits for the English army, he only found one case in which both testicles were not apparent. It is seldom the lot or good fortune of one individual to see many instances of the kind, even in those large capitals—London and Paris. John Hunter had only seen one case; Mr. Cock, of Guy's Hospital, one case; and Curling, who has written the best treatise on the Testis, likewise mentions one case of his own. I have now before me a monography of 150 pages on this subject, which forms only a chapter in Curling's work. The author, Mr. Ernest Godard, is a member of the Society of Biology, and a distinguished interne of the hospitals of Paris. He has devoted much labor and expense on this curious point of anatomy, and has certainly added greatly to our knowledge on the subject. It was my good fortune to become acquainted with Mr. Godard before the publication of his work, and I have seen several preparations and drawings in his invaluable collection. It was known to all the internes of Paris that he was engaged in investigating this subject, and the consequence was that he had abundant opportunities of collecting specimens which would otherwise have been lost. Mr. Godard has collected seven cases of cryptorchidism, some of which he only examined after death, others which are still alive; so that he can speak authoritatively on most points connected with the retention of the testes within the abdomen. The first of these is the fecundating power of the individual thus constituted, and on this essential point authorities are widely different, although, apparently, a subject very easily settled by the results of marriage. And yet it would seem, if the results of Mr. Godard's investigation are correct, that the imputed paternity would be more than doubtful. Hunter stated that when one or both testicles remain through life in the belly, the organ so situated is exceedingly imperfect, and incapable of performing its proper functions. Mr. Curling and Professor Owen take Hunter to task for this assertion, on the ground that the mere inclusion of the testes is not necessarily a cause of impotency, if the organs are otherwise well formed. Professor Owen, who is a great comparative anatomist, says that this condition, which is considered abnormal in man, is perfectly natural in numerous animals; among which we might mention the rhinoceros, the elephant, the camel, the immense tribe of birds and amphibious animals. In the hog the testicles are not retained in a distinct scrotum, for, though apparent, these organs are fixed in the perineal region, a condition which sometimes exists as an anomaly in man, and most frequently in the supposed cases of hermaphrodism. Thus reasoning from analogy, Professor Owen arrives at the conclusion, that the congenital retention of the testes, and the absence of the scrotum, is not, necessarily, a cause of impotency. He alleges, in fact, that the very case which was examined by Hunter after death, was said to have had, during life, all the passions, and, doubtless, the powers of a man. But the mere fact of sexual passion, nay, even of seminal emission, is not a proof of procreative power. There are several organs which concur in producing the seminal fluid, and the latter is therefore a highly complex secretion. As in the saliva, we have four distinct glands which concur to produce the mixed fluid found in the mouth, so the perfect semen consists of the secretions of the testes, the vesiculæ seminales, the prostate, and Cowper's glands. It is probable, that the most important of these are the spermatozoa, which are formed in the testes alone, as it is now well established. They doubtless supply the vivifying influence, whereas, the vesiculæ seminales, at the same time that they act as a kind of reservoir, similar to the gall bladder, also furnish the more fluid portions of the liquid; whereas, its peculiar gelatinous and mucoid ele-elements are furnished the latter by the prostate, the former by Cowper's gland. The question still arises, why is it that the testes cannot secrete, though retained within the abdomen, for they do perform this function when so situated in many classes of animals?

This may depend upon the abnormal disposition of the cremaster muscle. The fibres of this muscle, which, during uterine life, act as the gubernaculum testis, and draw the testicle down to its normal position in the scrotum; afterwards in adult life, surround the testes on every side, and doubtless fulfill the functions of compressor testis. If there were a muscular apparatus of the kind within the abdomen, it is possible that the secretion of spermatozoa might continue. But this would suppose an arrangement which does not exist in man; that the muscular apparatus is wanting, is proved by the fact that the testicles, in these cases, have not descended at all, or have assumed an abnormal position from the false insertion of the gubernaculum. The excretory apparatus of the liver resembles that of the testicles in many respects, and the walls of the gall-bladder have the power of contractility, and are supplied with muscular fibres of the unstriated variety. The fibres of the cremaster muscle belong to those of the striated variety, and are only, partially, under the control of the will. This, however, varies in different individuals, and it is stated by a French writer, that one individual, who was anxious to avoid conscription, had developed this power to such an extent, that he could pull up the testes to the abdominal ring, so as to imitate hernia, and could let them down at will, which he did several times after the trick had been discovered. Mr. Godard thinks that when the testis is fixed and immovable in the abdomen, or in the groin, it cannot secrete, because the motion to which it is subject in the scrotum acts as a necessary stimulant to its proper function. But even admitting that we could give no explanation why the testes secrete when in the scrotum, and why they do not, it remains to be proved whether this is true or not; on this point there is much conflicting testimony. The only scientific and reliable test is the microscopic examination of the spermatic fluid, for if it does not contain spermatozoa, though the wife had a dozen children, no one acquainted with the subject would attribute their paternity to a man who had no testicles in the scrotum. It must be remembered that the word impotency has two meanings: the vulgar generally believe that a man is only impotent when he cannot have an erection; whereas, in medicine, a man is said to be impotent when he cannot procreate, although he may apparently be perfectly able to accomplish the sexual congress. It has been ascertained by Mr. Gosselin, that the vas deferens is very often obliterated after an attack of orchitis, and if the affection should happen on both sides at once, it will follow that the individual has lost all procreative power, although his sexual passion is in no way diminished. Any one who has attempted the difficult, though beautiful, operation of injecting the testes will readily understand that the vas deferens which only admits the passage of the smallest capillary tubes, would be readily obliterated by the deposit of plastic lymph, the result of inflammation. In the other glands of the body, when their ducts become obliterated, the products of secretion accumulating in the body of the gland, generally cause some disturbance, and require the aid of art to reestablish the duct, or give issue to the liquid. It seems, however, that in the testicle, no such danger need be apprehended, and that the gland continues to secrete, although its natural duct be obliterated, the product formed in the gland being taken up by absorption. As the gland is nourished by its proper blood-vessels, and supplied with its special nerves, its influence upon the general nervous system continues, and the sexual passion of the individual remains entire, whereas, when the gland is removed by castration, it is the desire and not the power of sexual enjoyment which becomes abolished. As far as the procreative power is concerned, he who has the vas deferens plugged up by inflammation, and he who has the testes amputated, are in the same condition, only in the former the desire and enjoyment continue ; in the latter, all sexual feeling is destroyed, unless, perhaps, the reminiscence of past pleasures might bring back unavailing regrets. The latter knows he is impotent, the former does not. It is thus proved that the testes which are formed independently of the vas deferens, may act independently of it, provided they continue in their normal position in the scrotum. This is proved by numerous direct experiments, and the following observation, reported by Mr. Curling, settles the question: February 23d, 1842. I divided the vas deferens and a small artery running close to it (not the spermatic), on the left, and excised a small piece of the vas deferens on the right. The dog afterwards evinced a partiality for a bitch in a neighboring house. He was killed the 26th of April following. The abdominal aorta was injected. The right testicle was healthy and of good size; its epididymis was hard and clogged with a thick white substance which contained abundance of spermatozoa. The divided ends of the ducts were separated and closed; the right spermatic artery was of its normal size. The left testicle was atrophied; the left spermatic artery appeared obliterated. The changes on the left side were the result of inflammation induced by the operation.

We have cited the above experiment, and the pathological condition of the cord which sometimes follows from orchitis, to show that the procreative power depends upon the presence of the spermatozoa, in the semen, and these being formed in the testes, cannot be produced unless these organs occupy their normal position in the scrotum. The virility of the individual should not be judged by popular tests, and in doubtful cases, the microscope is the only sure means of diagnosis. It is probable that in the future the doubts which have heretofore prevailed on this question will be dissipated for scientific men, at least. Yet, Carpenter, in his work on physiology, p. 847, says: "Sometimes one or both testes remain in the abdomen during the whole of life, but this circumstance does not seem to impair their function."

Again, Curling, in his work on the testis, says: "The surgeon may confidently assure his patient that the detention of the testicles in the abdomen is perfectly compatible with his virility, and in cases where there are no external marks of effeminacy or other grounds for suspecting impotency, and the patient is subject to erections, the imperfection need not be regarded as any bar to marriage."

On the contrary, Mr. Cruveilhier, in his great work on Pathological Anatomy, vol. iii, p. 243, says that he was consulted on the propriety of marrying by a young man whose testes were situated within the abdomen, but whose penis was fully developed. Against Mr. Cruveilhier's advice the young man did marry, but his wife had no children.

Here is another instance which Mr. Godard publishes in his work, p. 146. He says:

"Doctor Martin Magrou has sent me the following observation:

"Mr. X * * * *, a man of ordinary stature, and well built, with plenty of beard on his face, but a weak voice has no testes in the scrotum, though no external sign would lead one to suspect this defect. His wife, who is young and beautiful, had a child after three years of marriage, but *I am certain that she was not faithful to her husband.*"

Mr. Gosselin, the French translator of Curling's work, says that he knows a man, aged 35 years, who has no testicles apparent, and yet does not believe himself less potent than others; but he has been married eight years, and his wife has no children. Mr. Gosselin had not made a microscopical examination of his semen.

He adds, that Mr. Goubaux, a distinguished veterinary surgeon of Alfort, has made many experiments on this subject, with horses and various other domestic animals. Mr. Goubaux has seen several instances of stallions whose scrotum contained no testes ; they have several times covered mares, and when proper precautions were taken to separate these from other stallions, they have never become with foal.

Mr. Luton, a talented interne of Paris, has a dog whose testicles are retained within the abdomen, and on several occasions, Mr. Luton has satisfied himself that this animal could not impregnate a slut, and that the semen contained no spermatozoa.

Finally, Mr. Godard has examined the seminal fluid from three persons thus constituted during life, and none contained the spermatozoa. He concludes by asking whether cryptorchid subjects should marry or not, when it is known they cannot procreate, and he thinks there is no better reason for refusing them the license, than to many others who have both the testes in the scrotum. We pass to the case which is the occasion of the preceding remarks:

Joseph Coulon, aged about 50 years, born in France, near Bordeaux, entered the hospital towards the beginning of May last, and died of phthisis pulmonalis on the 2d of June, 1860.

This patient presented one of the most singular anomalies which can possibly occur in the human organization. I have, therefore, decided to give a history of the case, and a few remarks on the nature of the anomaly :

On examining this patient, an observer would have been struck by his peculiar appearance ; his smooth skin resembling that of a woman ; his weak and effeminate voice, and the almost total absence of beard from the face, for he had only a few scattered hairs over the chin, and these of a soft and silky texture. The patient had been employed for some time, previous to his admission into the hospital, as cook in some bar-room about the city, when, his health failing him, he was compelled to enter the hospital. On a physical examination, I discovered the signs of a large cavity on the right side, and, in fact, it afforded me an excellent opportunity to verify and demonstrate the effect of the whisper, as denoting the presence of the cavity; a sign, I believe, discovered and proved by our distinguished colleague, Professor Flint; that is to say, that when the cavity exists, the whisper, which is intensified and circumscribed in the cavity, affords an unmistakable proof of the latter. Proceeding with my examination, I accidentally discovered a tumor in each inguinal region, and which I took for a bubonocele, or beginning hernial tumor, but I made no manual exploration. I regret to say that this circumstance did not attract more than a passing notice, and that I asked him no question on the subject of his virile powers. Attracted as I was by the curious auscultatory symptoms which rapidly followed each other, for the cavity on the right side seemed to increase rapidly, passing through the stages of gurgling, pectoriloquy, and finally, metallic tinckling, until, one morning, his ordinary purulent expectoration was replaced by a quantity of a yellowish looking liquid, whose hue and quantity excited surprise, as it could only be accounted for by a fistulous communication between the lungs and the liver, and of this we had before no sign or suspicion. A few days after this occurrence, the patient died, and the post mortem examination, made in the presence of several visiting physicians at the hospital, revealed the fact of a large abscess in the liver, which had perforated the diaphragm, communicating with the lung, adherent to the latter, and thence emptying into the cavity above mentioned. Of course the lung was perfectly infiltrated with tubercle. Independently of these highly interesting pathological appearances, I discovered the complete absence of the scrotum, in other words, the patient had no testicles apparently. It at once struck me that I had here one of those singular anomalies mentioned by Curling, in his work on the Testis, as exceedingly rare, and by him termed : Cryptorchidism, or the inclusion of the testes within the abdominal cavity ; and thus did I satisfy myself, that the hernial tumors were, in fact, the testes thus arrested in the groin. On the right side, I found that the gland descended a little below the external inguinal ring, being itself free and detached in a small pocket of its own, following the normal direction of the cord, but situated just a little below the external orifice, so as easily to be mistaken for a beginning hernial tumor. But though the gland itself was free, the epididymis was adherent to the lower portion of the sac, and separated from the body of the gland, as if traction had been made upon it, and caused it to adhere to the surrounding tissues. On the left side, the testis was still within the inguinal ring without any mobility whatsoever, also separated from the epididymis, which was situated outside of the ring. This latter gland was flattened and apparently atrophied ; on the right side, the gland was somewhat larger and rounder, but still of small size. The vas deferens, or spermatic cord, which was pervious, could still be traced to the vesiculæ seminales at the base of the bladder. The vesiculæ were filled with a whitish looking fluid, presenting the appearance of the sperm, but a careful examination with the microscope, showed it to consist of fatty granules and vesicles without any spermatozoa, although this examination was made but a few hours after death, so that I concluded that the testes did not secrete the spermatozoa, and could not have been apt at fecundation. Such is a correct anatomical description of the specimen that I have now before my eyes.

A correct explanation of this singular anomaly carries us back to the development of the organs of generation during fœtal life, to the functions of the gubernaculum testis, or the action of the cresmaster muscle.

It is a well known fact, that in the embryo the testes are situated in the lumbar region, immediately in front of, and somewhat below, the kidneys. The descent of the testicle is gradual and progressive, so that these organs which were first situated within the abdomen, up to the fourth or fifth month, came at last to reach the scrotum outside and below the abdominal cavity. While in the former position, they are situated behind the peritoneum, and pushing this serous membrane before them, they become enveloped in a distinct sac, which is the tunica vaginalis testis of the adult. Towards the eighth month, the testes are generally situated either within the inguinal ring, or a little below. But it accasionally happens that at birth one or both testicles have not passed into the scrotum, being detained either in the abdomen, near the groin, in the inguinal canal, or just outside of the external ring. In a table of one hundred and three male infants, examined by Weisberg at the time of birth, it appears that seventy-three had both testicles in the scrotum; in twenty-one, one or both were in the groin.

According to Coste, the vasa deferentia, at an early period, are disconnected with the testicles, and originate by free extremeties, which, like points of ossification in bone, grow together and reach their ultimate point of destination on each side at the base of the bladder. In order to explain the mechanism of the descent of the testis, we must remember that the gubernaculum is supposed to serve as a guide to the testicle in its passage through the inguinal canal to the scrotum. The muscular fibres which enter into the structure of the gubernaculum consist of three different bands, the most internal of which is attached to the pubis, the external to Poupart's ligament; the middle, which is the longest of the three, extends to the bottom of the scrotum, so that the attachments of the gubernaculum in the embryo are similar to those of the cremaster in the adult, and Curling has no doubt of the identity of the two structures only at different periods of development. It is owing to his admirable labors that we have ascertained the mechanism of the descent of the testis, so that, according to him, the fibres proceeding from Poupart's ligaments and the internal oblique muscle, tend to guide the gland into the inguinal canal, those attached to the os pubis draw the testis outside the abdominal ring, and the fibres attached to the bottom of the scrotum direct it to its final destination. At the same time, a portion of these fibres have become completely everted and assumed their new functions of elevating, supporting, and compressing the glands. The passage from the normal anatomy to the pathological or abnormal condition is sufficiently easy, and we can readily understand that the congenital absence of one of the fibres of the gubernaculum testis or its abnormal insertion may cause the retention of the testis within the abdomen, or its partial descent. In our case, we mentioned the fact that the epididymis was disengaged from the gland, and extended lower into the scrotum; thus we can understand that if by some congenital accident the cremaster muscle happens to be attached to the epididymis, instead of to the body of the gland, the descent will be necessarily partial, and the convolutions of the capüt minor be dragged away from the gland.

Independently of the physiological interest attached to the above case, it is also interesting in a surgical point of view, for if it were mistaken for a hernial tumor, and a bandage applied, the latter might occasion serious accidents; on the other hand, an attempt to return the supposed hernial tumor might be equally disastrous.

It is therefore exceedingly important to recognize this malformation, and this can generally be accomplished with ease, when the anatomical arrangement of the region is borne in mind. The differential diagnosis between the retention of the testis in the inguinal region, and bubonocele or beginning hernial tumor is that which presents the most difficulty. Their situation is the same, their volume and external appearance also resemble each other; but the testis is generally fixed in its abnormal position, and cannot be reduced, whereas, except in a case of strangulation, the intestine can be reduced by proper manipulation; then again, the tumor containing a dense, glandular body, will be quite different from the soft elastic, compressible tumor so characteristic of intestinal hernia. From omental hernia, the distinction might not be so easy; but the doughy feeling of the latter, its continuation upwards into the ring, and the possibility of reduction are sufficiently characteristic when compared to a tumor circumscribed on every side, which is but slightly if at all moveable, and which, morever, on compression, gives the peculiar sensation of distress caused by pressure on these organs. But all doubt must be removed by an examination of the scrotum, which is either rudimentary or entirely absent. The only difficulty then is to bear in mind, that such a thing as imperfect migration of the testis, does happen, and that the presence of these glands below or in the inguinal ring may simulate hernia. The surgeon remembering this, may, in some period of his career, avoid prescribing a truss whose use, if at all bearable, would ultimately result in atrophy of a gland already weak and worse than dubious in its functions. Nay, in the very case which we have just described, the unfortunate individual sedulously wore, until a few hours before his death, a double truss which must have pressed on the spermatic chord of one side, and the testis itself on the other. It is difficult to conceive how he could have endured such pressure, and yet its disastrous results were sufficiently evident in the small flattened gland which was found on the left side. Mr. Godard, cites two cases, which came under his own observation, where serious disturbance was caused by the injudicious application of a truss. The operation for the radical cure of hernia, would scarcely occasion much mischief in a case of the kind, for the first requisite in Wützer's operation is that the inguinal canal be free, in order that the needle may be introduced.

The diagnosis of this malformation is therefore sufficiently easy, when the testicle alone occupies the inguinal canal. But it often happens that the presence of the testis in the canal, causes such an enlargement of the rings as predisposes the subject to hernial protrusions, so that this complication may readily occur. A case of this kind would be exceedingly difficult to recognize, for if the intestine presses down past the testis, and distends the scrotum, simulating its normal appearance, the surgeon may easily overlook the absence of the gland. Mr. Godard cites precisely a case of the kind, which occured to a distinguished surgeon of Paris, and which terminated fatally. The patient entered the hospital with strangulated hernia on the left side. After vainly attempting reduction by taxis, he was operated upon, and even after incision of the sac, and enlargement of the ring the intestinal mass was, with the utmost difficulty, returned into the abdomen. The patient died shortly after the operation, and the post mortem examination showed that the subject had one testis which had remained attached in the inguinal canal, and that the hernial sac passing over it descended into the scrotum. In this case the gland was itself the cause of the intestinal strangulation, and the obstacle which had prevented the return of the hernia, though incisions had been fully made at the internal inguinal ring which is the usual seat of constriction.

We have said that the congenital abscence of both testes, is as above stated, comparatively rare, but it more frequently happens that one testis may be retained in the abdomen and this condition is termed monorchidism by Mr. Godard, who has accumulated several instances of the kind from his own observation. He has found in every case where he has made the post mortem examination, that the vesicula seminalis corresponding to the retained testis was uniformly wanting in spermatozoa, though these were abundant on the opposite side. He cites several living instances of monorchidism, most of which have had children of both sexes, thus showing that the old idea of Hippocrates, that the right testis engendered boys, and the left girls, has not the least foundation in fact. We have not adverted, from want of space, to the treatment of monorchidism and cyptorchidism, nor to the diseases to which these organs are subject while in their abnormal position. Those who take an interest in the subject will do well to consult Mr. Godard's interesting work, or Messrs. Gosselin's, Follin's and Goubaux's articles in the Archives Générales de Médecine. Our object will be fully attained if we have excited some interest on this comparatively new subject.

A STATISTICAL TABLEAU OF THE CASES IN WARDS 14 AND 15 OF THE CHARITY HOSPITAL.

BY ANTHONY PENISTON, M. D.

Having for some time past kept a faithful record of all the cases in my wards at the Charity Hospital, it occurred to me that it might be convenient to arrange, for convenience of reference, the whole results in tabular form. The work has seemed to me to present some utility, as a faithful mirror of the sanitary condition of our city during the last three months. The small per centage of fatal cases, goes to show that except, in the years of epidemic, our diseases are quite amenable to treatment, and I doubt whether the mortality of any other hospital in a large capital could exhibit a similar result. The average duration of treatment when compared to that of the three months preceding is found to be greatly in favor of the summer months; but then the medical constitution is entirely different during the summer months from the diseases which prevail in winter. In the summer months the diseases, which are generally acute, like fevers, run their course rapidly either to a fatal or favorable termination; in winter, on the contrary, the long list of catarrhal and pulmonary affections are less easily mastered, or, at all events, the convalescence is longer. Thus it is, that the average duration of treatment for the three months ending July 1st, was sixteen days, whereas, for the three months ending September 1, the average is only about eight days. It will be observed that the greatest number of patients in the following tableau are French: this is to be explained by the fact that almost all the French patients which are admitted into the Hospital, are usually sent to the above wards. The following table will exhibit, better, than words could express, the unrivaled advantages of our great Hospital for the study of diseases, their treatment, and morbid anatomy. There only, can the material be furnished for the book of Southern Practice.

In getting up this statistical table, I am greatly indebted to Mr. Amédée Darrieux, a patient of mine, who has been, for some time, acting as my clinical clerk, and a more able, devoted and industrious assistant I have never known; he has rendered easy and agreeable, a task which would otherwise have been tedious in the extreme. I have also to thank him for the daily bedside record of numerous cases, which have come under my observation and treatment during the last six or eight months.

STATISTICAL TABLEAU

Of Cases in Charity Hospital, in Wards Nos 14 and 15, from July 10th to September 1st, 1860. By A. Peniston, M. D., Professor of Anatomy, New Orleans School of Medicine, and Visiting Physician, Charity Hospital.

Number of Patients	PLACES OF THEIR NATIVITY	AGES 10 to 20 years	AGES 20 years upwards	DIAGNOSIS	Total by each class of Disease and places of nativity	Total General	NUMBER OF PATIENTS Discharged	NUMBER OF PATIENTS Deceased	NUMBER OF PATIENTS Remaining	Total General	Number of days of Treatment or sojourn in Hospital
1	Ireland		1	Phthisis	1	32			1	32	53
1	Do		1	Rheumatism	1		1				18
1	Do		1	Gastric Derangement	1		1				33
1	Do		1	Pernicious Fever	1			1			3
11	Do	2	9	Intermittent Fever	11		8		3		47
1	Do		1	Sciatica	1		1				36
3	Do		3	Bilious Remittent Fever	3		3				24
1	Do		1	Hemorrhage of the Lungs	1			1			1
1	Do		1	Contusion	1		1				14
2	Do		2	Fatigue	2		2				2
1	Do		1	Lead Colic	1		1				5
6	Do	1	5	Remittent Fever	6		3		3		29
1	Do		1	Diarrhoea	1				1		6
1	Do		1	Congestive Fever	1				1		2
1	Germany		1	Chronic Bronchitis	1	20		1		20	23
8	Do	2	6	Intermittent Fever	8		6		2		31
1	Do		1	Alcoholism	1		1				15
1	Do		1	Gastric Derangement	1		1				14
1	Do	1		Scrofulous Rheumatism	1		1				10
1	Do		1	Bilious Derangement	1		1				8
1	Do		1	[illegible] Tumor	1		1				21
1	Do		1	Chronic Diarrhoea	1		1				27
1	Do		1	Jaundice	1		1				9
1	Do	1		Debility	1		1				3
1	Do		1	Fatigue	1		1				1
2	Do		2	Phthisis	2		1		1		5
6	France		6	Phthisis	6	61	4	1	1	61	55
17	Do	2	15	Intermittent Fever	17		17				107
1	Do		1	Contusion	1				1		53
1	Do		1	Disease of the Heart	1			1			1
4	Do		4	Diarrhoea	4		4				32
1	Do		1	Adenitis	1		1				15
1	Do		1	Pneumonia	1		1				20
1	Do		1	[illegible]	1		1				5
1	Do		1	Venereal	1		1				1
3	Do		3	Rheumatism	3		3				13
1	Do		1	Bilious Fever	1						7
1	Do		1	Cirrhosis of the Liver	1			1			4
5	Do		5	Gastric Derangement	5		5				58
2	Do		2	Constipation	2		2				12
1	Do		1	Gastro Intes Disturbance	1		1				3
1	Do		1	Asthma	1		1				5
1	Do		1	Bilious Derangement	1		1				5
1	Do		1	Chronic [illegible]	1			1			26
2	Do		2	Remittent Fever	2						5
1	Do		1	Debility	1		1				14
1	Do		1	Ulcer of Leg	1						1
1	Do		1	Abscess of Hand	1						1
1	Do		1	[illegible]	1				1		17
1	Do		1	Stomatitis	1		1				9
1	Do		1	Bilious Colic	1						4
1	Do		1	Lead Colic	1						10
1	Do		1	Delirium Tremens	1			1			2
1	Do		1	Abscess of Breast	1				1		5
1	Do		1	Chronic Alcoholism	1				1		1
1	Scotland		1	[illegible]	1	1				1	36
1	Italy		1	Rheumatism	1	4				4	9
1	Do		1	Bronchitis	1				1		26
1	Do		1	Bilious Derangement	1		1				7
1	Do	1		Intermittent Fever	1				1		2
1	Mexico		1	Bilious Fever	1	1	1			1	3
1	Switzerland		1	Gastric Derangement	1	3	1			3	1
1	Do		1	Fatigue	1		1				1
1	Do	1		Lead Colic	1		1				6
1	New Brunswick		1	Intermittent Fever	1	1	1			1	6
2	Belgium		2	Intermittent Fever	2	2	2			2	6
1	Spain		1	Bilious Derangement	1	4	1			4	7
1	Do		1	Gastric Derangement	1		1				1
1	Do		1	Intermittent Fever	1		1				3
1	Do		1	Bronchitis	1				1		8
1	Portugal		1	Gastric Derangement	1	1	1			1	14
1	England		1	Remittent Fever	1	4	1			4	10
2	Do		2	Intermittent Fever	2		1				6
1	Do		1	Gastric Derangement	1				1		20
1	Malta		1	Phthisis	1	1			1	1	15
1	Canary Islands		1	Intermittent Fever	1	1				1	4
2	Austria		2	Intermittent Fever	2	2				2	6
1	Bohemia		1	Intermittent Fever	1	1			1	1	4
1	Louisiana	1		Epilepsy	1	5				5	26
1	Do	1		Intercostal Neuralgia	1				1		40
1	Do		1	Phthisis	1						1
1	Do	1		Scarlet Fever	1			1			1
1	Do		1	[illegible]	1						1
1	Pennsylvania		1	Cirrhosis of the Liver	1	1		1		1	1
1	Vermont		1	Inflammatory Fever	1	1				1	6
1	Kentucky		1	Remittent Fever	1	1				1	8
1	New York		1	Diarrhoea	1	2			1	2	18
1	Do		1	Phthisis	1						8
1	Massachusetts		1	Chronic Alcoholism	1	1		1		1	4
1	Rhode Island		1	Phthisis	1	1		1		1	1
1	Virginia		1	Congestive Fever	1	1			1	1	8
1	Unknown		2	Sun stroke	2	2		2		2	2
154		13	141		164	154		14	26	154	1268

OBSERVATIONS

It is proper to observe that out of the 14 patients deceased, in this Statistical Tableau—

2 died in the lowest stage of Consumption a few hours after their admission.

1 died of Hemorrhage of the Lungs, one hour after Admission.

1 died of Scarlet Fever, in its highest period, lived only 15 hours.

2 died of Sun Stroke—were brought in agonizing, and in so prostrated a state that their names and places of nativity could not be ascertained.

1 died altogether worn out by long and inveterate habits of intemperance and though 70 years of age, lived three days.

1 died under a very strong attack of Delirium Tremens, who firmly denied his being addicted to hard drinking until we had the convincing proofs of the contrary by his own confession, when under the influence of a fit of Delirium. Lived two days.

—

8 Total which were altogether beyond the beneficial reach of any medical treatment.

SYNOPSIS of the Cases above, by Places of Nativity of the Patients, and Number of Days of Treatment

DIAGNOSIS	TOTAL of Cases and Patients	Days of Sojourn in the Hospital by each class of Disease
[illegible]	1	[illegible]
[illegible]	1	1
[illegible]	1	15
[illegible]	1	18
[illegible]	1	5
[illegible]	1	20
[illegible]	4	27
[illegible]	2	10
[illegible]	1	24
[illegible]	1	8
[illegible]	1	23
[illegible]	1	53
[illegible]	1	5
[illegible]	[illegible]	5
[illegible]	1	10
[illegible]	[illegible]	67
[illegible]	1	21
[illegible]	2	12
[illegible]	2	17
[illegible]	6	55
[illegible]	1	2
[illegible]	1	1
[illegible]	1	3
[illegible]	1	20
[illegible]	4	6
[illegible]	11	141
[illegible]	1	5
[illegible]	1	1
[illegible]	1	6
[illegible]	1	42
[illegible]	47	222
[illegible]	1	1
[illegible]	1	9
[illegible]	[illegible]	21
[illegible]	1	36
[illegible]	1	3
[illegible]	13	136
[illegible]	1	20
[illegible]	10	62
[illegible]	5	40
[illegible]	1	1
[illegible]	1	36
[illegible]	1	10
[illegible]	1	9
[illegible]	[illegible]	[illegible]
[illegible]	1	17
[illegible]	1	1
[illegible]	1	1
	154	1268*

OBSERVATIONS

* Total of days of sojourn in the Hospital for 154 Patients [illegible] days—which makes [illegible] an average of a [illegible] fraction more than 8 days of treatment for each.

NOTA BENE.

We had the following cases with the number of days of treatment:

47	Intermittent Fever	222 days.
[illegible]	Bilious Remittent Fever	24
10	Remittent Fever	[illegible]
2	Congestive Fever	10
3	Bilious Fever	10
1	Scarlet Fever	1
1	Inflammatory Fever	6
6	Diarrhoea	55
2	Chronic Diarrhoea	53
74	Patients with the	[illegible] days

of sojourn in the Hospital, which gives an average of [illegible] fraction [illegible] than 6 days treatment.

QUININE IN PNEUMONIA, ETC.

Editors of the Medical News and Hospital Gazette.—GENTLEMEN—In the January issue of your journal, Dr. Marsh, of Port Hudson, had an article upon the subject of *Miasmatic Hæmaturia.* In the preparation of our *summary* for the *A. M. Monthly*, for March, we gave a summary of his opinions, and at the same time entered a demurrer to the correctness of the following passage: "When I read in the medical journals of the day of the successful treatment of pneumonia and other inflammatory diseases by quinine, I feel confident the writers are mistaken in their diagnosis; that they are treating a true and genuine intermittent, disguised in all the habiliments of idiopathic inflammation." Having treated many cases of pneumonia, in which quinine was the essential treatment, with results satisfactory to all concerned, and having made a record of the same in the "journals of the day," we naturally felt a little sensitive that our diagnosis should be so summarily called in question, and remarked accordingly. In the June number of your excellent journal, Dr. Marsh objects to our statement, demurs to our demurrer, and says: "In discussing this subject I shall attempt to establish the truth of my opinion, and show from experience, argument, and authority, that intermittents and remittents of miasmatic origin *are the only diseases* promptly relieved by quinine, and that its use, as a speciel remedy in the treatment of inflammation, is not indicated, *and is useless if not positively injurious.*"

We have read the article carefully, but the experience, argument, and authority, we fail to find; unqualified assertion being only relied upon to prove that quinine is always pernicious in pneumonia. Even had the "experience, the argument, and the authority" been given in support of the opinion that quinine is always injurious in pneumonia, except that pneumonia be of a miasmatic origin, we should have still *known* the opinion incorrect. Of what avail are argument and authority in disproof of a repeatedly and closely observed fact?—of what avail are argument and experience to prove that a certain house is fire-proof, if, perchance, we have already seen the house burned to ashes? We have so often seen cases of pneumonia under the routine treatment of blood-letting, antimony, etc., approach the grave so rapidly, and so near that we trembled for the issue; we have seen those same patients come as rapidly back from death's door to convalescence and health under the use of quinine and opium, and no argument nor authority could convince us that the result was injurious, or the former always the better treatment. Dr. Marsh says, "I do not doubt, that many cases of pneumonia and other inflammatory diseases have recovered in regions where 'intermittent and remittent fever never originated,' where quinine, in combination with other remedies, had been used in their treatment." . . . . "But I was always of the opinion, in witnessing such experiments, that it generally retarded and never expedited a cure." These opinions he has a right to hold, and he has a right to question our diagnosis when we say we have repeatedly seen pneumonia yield from the hour that quinine was brought to bear upon it. In three of the worst cases of pneumonia we ever saw—cases diagnosed by other practitioners, and the correctness of that diagnosis confirmed by ourselves, we have advised quinine and opium, and, though objected to by the attending physician, and yet consented to because the cases were regarded as hopeless, recovery commenced from the date of the change of treatment.

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* The italics are ours.

We have never advised quinine in pneumonia as a specific remedy, neither do we advise it in all cases. What we have endeavored to urge is, that it is not every case of pneumonia that is best treated with blood-letting, antimony, etc. We believe there are many cases of pneumonia, which never would have occurred had not the patients, when exposed to the conditions which proved causative of the disease, been, in point of health, below par: and such, we believe, would be best treated by elevating them to a par condition.

When Dr. Marsh asserts that "intermittents and remittents of a miamastic origin are the only diseases promptly relieved by quinine," he asserts that which we think it would trouble him to find "experience, argument, and authority" to establish. This is certainly narrowing its use to very restricted limits.

We believe there is much error entertained in regard to the action of quinine. It is usually regarded as an anti-periodic, stimulant, and tonic. If it is a stimulant we have failed to discover it, even after very close observation. In our hands it is oftener a *sedative*. As a tonic and *sedative* we regard it as peculiarly adapted to pneumonia, particularly of an adynamic type. We think Dr. Marsh may yet learn with advantage, what Dr. G. A. Wilson, of *North Carolina*, has done already. Dr. Wilson says, "*as early as the year* 1838 I had to unlearn all that had been taught me of this agent as a stimulant and tonic, and of the dangers attending its administration in inflammatory states of the system. I have often noticed its effects in that class of cases, complicated by cerebral determinations, and can safely say I have never known injurious consequences to follow. If stimulant at all it has not acted in my hands as stimulants are wont to do. In many cases of high nervous excitability, it has had soothing and *sedative* effects.

Dr. Marsh quotes Periera to prove that quinine acts as a stimulant, and increases the frequency of the pulse. In some conditions it may do so ; but we have so often seen the pulse in pneumonia fall from 120 or 130 in a minute to 80 or 90, that we are slow to believe it. We well remember once, in consultation over a very bad case of pneumonia, in which blood had been abstracted and antimony given for a week, we advised full doses of quinine. The attending physician obstinately opposed. The pulse was 140 and death seemed imminent. We compromised the matter by saying that if the pulse did not lose 10 beats from the effect of the first three doses he might discontinue. It lost 30 in that time and was continued, and the patient made a rapid recovery. Dr. Marsh may say we were attending a miasmatic fever, and did not know it ; but he cannot make us nor the attending physician believe it, for in this locality a miasmatic fever was never known to originate. This last fact, however, is not the reason for our disbelief. Dr. Marsh admits that Professor Austin Flint has used quinine, opium, and alcoholic stimulants with remarkable success in pneumonia ; yet he admonishes "country practitioners not to follow too willingly the routine of hospital practice," and warns them "not to adopt and yield too implicitly to such formulary and plans of treatment." Though a "country practitioner," we would say to Dr. Marsh's admonition, that we used quinine in pneumonia before we were aware that Dr. Flint or any person else had done the same.

Too many physicians are on the constant watch for an inflammation, and when found they attack it without further thought with the lancet, antimony, calomel, etc.—all for which we would contend is, that inflammation may be better treated with quinine and alcoholic stimulants even than with the lancet and the usual antiphlogistics. *The name of a disease should not influence our treatment; the condition of the patient and of the diseased action should govern the therapeutic indications.*

We must confess that the period of our observation is three years less than Dr. Marsh's, and the latitudinal range of our experience is much less; yet, while so confessing we would say that, though in active practice, we have not lost a patient under 75 years of age affected with pneumonia since we saw proper to use quinine in such cases. If such treatment is positively injurious, the *results are quite to our liking.*

O. C. Gibbs, M. D.

Frewsburg, Chatauqua Co., N. Y.

MONTHLY SUMMARY

OF AMERICAN JOURNALISM.

Chlorate of Potassa, as a Therapeutic Agent in Secondary Syphilis.—Dr. W. H. Bryant, in the June number of the Cincinnati *Lancet and Observer*, reports a case of secondary syphilis which was successfully treated by the exhibition of the chlorate of potassa internally. Dr. B. is accustomed to use the following formula:

℞ Potassæ chloratis, ʒivss;
Aquæ fervent: ℥iv; M.,

of which one teaspoonful may be given every three hours.

In cases where the skin was matted, and where the papules suppurated, the following was ordered:

℞ Hydrargyri bichloride, gr. iv;
Tincturæ cinchon: Co: ℥iv; M.,

of which a teaspoonful is taken in a half wine glass of the compound decoction of sarsaparilla. Dr. B. does not claim the chlorate of potassa as a specific for syphilis, but merely considers it as a very valuable addition to the therapeutics of this loathsome disease.

A Boston correspondent of the Cincinnati *Lancet and Observer*, June 1860, in an interesting review of the *Seventeeth Registration Report of the Births, Deaths and Marriages in the State of Massachusetts, for the year* 1859. calls attention to a case of illegitimate birth, which is remarkable on account of the extreme youth of the mother. Elizabeth was born of native parents, in the Alms House, at Taunton, May 24, 1847; and, at the same place, she became the mother of a healthy boy, weighing eight pounds, on the first day of February, 1858, being only *ten years, eight months and seven days old.*

TETANUS WITHOUT TRISMUS.—In the May number of the Charleston *Medical Journal and Review*, Dr. Chisolm reports a case where tetanus appeared during the treatment of chronic whitlows, in a hand devoid of all sensibility, and in which the free pricking of a sharp knife was not felt. It is worthy of notice, also, in this case that no rigidity of jaws accompanied this very acute and rapidly fatal attack of spasms. The patient succumbed sixty hours from the first complaints of soreness, and forty hours after the commencement of the tetanic spasms.

OCCLUSION OF THE VAGINA AND ABSENCE OF THE UTERUS. At the meeting of the *Boston Society for Medical Improve-*

ment, of April 23, and reported by the *Boston Medical and Surgical Journal*, June 14, 1860, Dr. Warren stated that a patient, 22 years of age, unmarried, who had never menstruated, had lately applied to him. She had been examined by a female practitioner, who told her there was no vagina, which proved to be the case. By the rectum there was felt in the median line a small substance of the size of a bean, and a larger body on each side. At fifteen years of age, this patient had pain in the limbs, supposed to be premonitory of the catamenia ; but there never had been any farther menstrual demonstration. So far as could be ascertained, the sexual feeling was present, and the woman was perfectly developed.

It may be recollected that, two years ago, Dr. Warren had reported, to the same society, the case of a woman who had been married two years, and who had experienced difficulty during sexual congress. She was well developed, had pains in the loins every month, but had never menstruated. On examination, only a slight depression was found in the situation of the opening of the vagina. The urethra was displaced below its normal position, and much dilated. Neither uterus nor ovaries could be detected by an examination *per rectum*. In both of these cases the ovaries must have existed, to give rise to the external development ; in one case there was also the rudiment of a uterus.

VICARISM—THE KIDNEYS SECRETING MILK.—In the March number of the *Oglethorpe Medical and Surgical Journal*, Dr. W. Hauser reports, on the authority of Mr. James J. Hines, a case of a negro woman, the property of Mr. H., aged 23, the mother of three children, who during the whole of each lactiferous period, passed milk by the kidneys. She suffers during these periods great uneasiness, pain and weakness about the region of the kidneys, and the lower part of the abdomen. She gives milk enough by the breast at the same time to keep her child in good condition. A specimen of this lacteous fluid, voided by the woman in her urine, was submitted to Dr. Eastern Yonge for chemical examination, and it was ascertained to be milk. The quantity, passed during a single night, was estimated to be at least a pint and a half.

Spontaneous Amputation of the Arm.—In the Boston *Medical and Surgical Journal*, June 21, 1860, Dr. C. D. Cleveland, of Grass Valley, California, communicates a case, under the style which heads this article, as having occurred to a "Digger" Indian, who received a gun shot wound midway between the elbow and shoulder joint, the ball in its passage, having severed the brachial artery. "The arm at last mortified to within three inches of the head of the humerus, and after a while became dry and withered. At the point of connection between the lifeless and vital portions of the member, there was a copious secretion of pus. An old Indian came along, and seeing his condition, prevailed upon him to permit the dead mass to come off. Procuring a dull hand saw he severed the humerus, leaving it protruding three inches beyond the soft parts." The patient was soon about, when Dr. C. had frequent opportunities of examining his condition. Healthy puss was freely discharged from around the bone, the medullary cavity of which was kept by the Indian plugged with cotton wool. The dead bone was thrown off, including about one inch and a half of a portion within the soft parts. The sore, at the date of this communication, is reported healed, and the stump as comely as possible.

VIOLENT EPISTAXIS—PLUGGING BY A PIECE OF DISTENDED ŒSOPHAGUS.—In the Philadelphia *Medical and Surgical Reporter*, June 23, 1860, Dr. J. W. Thompson (in consultation) reports a case of a severe and violent epistaxis, in which all the usual remedies had been resorted to without avail. The anterior and posterior nares of the right nostril were tamponed, as the hæmorrhage appeared to come principally from that cavity. This, however, arrested the hæmorrhage but temporarily, for it soon reäppeared with increased violence. Dr. Thompson then suggested a trial of the plan of Dr. E. A. D'Arcy, of Illinois, in whose case after a failure of the usual remedies, the œsophagus of a sheep was passed through the right nostril, from the anterior back to the posterior nares, and forcibly distended by injecting cold water, with the effect of arresting the hæmorrhage. In this case the same means was resorted to with signal success.

INJURIES SIMULATING FRACTURES OF THE CRANIUM.—Dr. E. Andrews, Professor of Surgery in the Lind University, in the Chicago *Medical Examiner*, June, 1860, reports two cases simulating fractures of the skull. The first case is that of a man who was thrown from a wagon and taken up in an insensible condition. On examination, he was found to be comatose, but the pulse was not slow as in most cases of compression. On the occipital bone there was a distinct depression, with one well defined edge, but no injury to the scalp. The depression did not present all the appearances of a recent injury. Two hours afterwards the patient was conscious ; the depressed spot was not sore, nor did it indicate violence. It proved to be an accidental irregularity, which Dr. A. considers either congenital, or else the result of some old injury. The case recovered.

The second case is that of a boy, twelve years of age, who was also thrown from a wagon. The scalp was separated from a portion of the occipital bone, but not lacerated. The separated patch was distended with blood making a soft fluctuating tumor. In the lower part of the tumor, at the insertion of the trapezius muscle, there was a blunt edge to be felt, with an apparent cavity above it. The patient was comatose, but the breathing was not stertorous, nor did the pulse indicate compression. The tumor was then opened by Dr. Andrews, its cavity explored and the blood evacuated. He found the cranium sound, and the prominent ridge which first arrested his attention proved to be the upper end of the trapezius muscle, which was torn from its insertion and presented a sort of sharp edge under the skin. The patient suffered more or less from an impairment of his mental faculties for several months after the wound, but finally recovered.

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SPECIAL SELECTIONS.

LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the College of France, during the Winter Session, 1859–60.

By M. Claude Bernard, Member of the French Institute; Professor of General Physiology at the Faculty of Sciences.

LECTURE XX.—EXPERIMENTAL PATHOLOGY ON THE ANALOGY BETWEEN THE ACTION OF MORBID CAUSES, AND THAT OF POISONS.

Summary; Reflections on the General Characteristics of Morbid Causes—They require to be examined, like all other Agents introduced into the Body, in their Physiological Agency—Injustice of Reproaches usually addressed to Medical Men on their Ignorance of Biological Causes—Certain Problems, in Science, cannot possibly meet with a Solution, the Human Mind not being able to seize the intimate Nature of the Properties which belong to Matter—Practical Results always connected, however, with the accessible Part of Scientific Questions—Mode of Action of Morbid Causes compared with that of Poisons—Woorara—Strychnia—Effects of Cold on the Motion of the Heart—Singular Case of Poisoning by Arsenic, related by Corvisart—Its Analogy with certain Forms of Disease—In what Manner various Disorders ultimately produce Death—Rational Autopsies—They consist in examining successively all the Tissues, the Blood itself included—The Liver taken as an Instance; contains no more Glycogenic Substance, towards the Close of fatal Diseases, in a variety of Cases—Absolute Insufficiency of Postmortem Examinations, as usually performed—Practical Conclusions to be deduced from the preceding Reflections—False Notions of the Power exerted over Nature by Man—The Aurora Borealis which lately took place at Paris adduced as an Instance of this—Necessity of combining Experimental Researches with Clinical Observations: and of comparing Healthy Tissues with Diseased Ones—The Blood principally requires to be thus examined—Chemical Analysis, in this respect, will never supersede Physiological Investigation—Effects of Morbid Principles curable in a two-fold Manner: 1st, by Neutralization; 2d, by Elimination—The latter Process is the only one over which we possess any control.

GENTLEMEN—The general notions which, up to the present moment, have been the fundamental support of all our studies, are entirely derived from the parallel established at the very commencement of these lectures between Physiology and Pathology. We have shown you that physiology having, especially in these latter times, made rapid strides in advance of its elder sister, is now enabled to return the assistance which, at an earlier period, it received from the science of disease. We have, subsequently, examined the influence exerted by various agents upon the organs and tissues of the living body; a less extensive, and better defined subject now lies open to our investigation; it is time that we should enter into the special domain of pathology, and commence the study of morbid causes. The method of inquiry which up to this point has been our guide, must still continue to direct our researches. To ascertain the mechanism of natural phenomena, and the mode of action of natural forces; to deduce from the knowledge of facts the practical consequences which belong to our subject—such must always be our aim, without attempting to solve the abstruse difficulties, which lie beyond the pale of human knowledge.

In our introductory lecture we exhibited the regular evolution which, step by step, carries a science from its very cradle up to the highest stage of development, and you have seen that in every possible branch of study the progress of the human mind is arrested at a given limit. "When we arrive at a certain point," says Lord Bacon, "Nature grows deaf, and answers no longer our inquiries.

The ignorance of Medical men in these respects has often been the object of ironical reflections; and you well know the sarcastic reply with which Mollière answers the question: "Cur opium facit dormire?" "Quia inest in eo Virtus dormitiva." But in order to do justice to the sciences, and those who cultivate them, a question must never be put in such terms; each separate branch of natural philosophy might in the same manner be tried and condemned. If, for instance, it were inquired for what motive all ponderous bodies fall towards the centre of the earth, we should be equally unable to answer the question. The law which Newton established has taught us in what manner the force of gravitation acts, without throwing any light upon the intimate nature of that power. It is, therefore, as irrational as unjust to blame the biological sciences for a defect inherent to all human knowledge. Let us be satisfied with inquiring how diseases are produced, how medicines cure them, and how poisons destroy life. It has not been allotted to us to know why things are; but only in what manner they exist.

Our purpose is, therefore, to examine, in the natural order of succession, the phenomena which take place within the living body, when foreign substances have been ingested, in order to learn the mode of action which enables it to produce baneful or salutary effects (as the case may be) throughout the whole system. We have found, for instance, that woorara paralyzes all the motor nerves, puts a stop to all motion, suspends the act of respiration, and thus brings on suffocation. The practical result is that by artificially insufflating air into the lungs during a sufficient length of time, the animal is kept alive till the poison has been eliminated, and all the danger is past; now, the same takes place with all poisonous substances which do not produce actual disorganizations of the tissues: strychnia is in the same case as the former poison, for, if all the external excitement, which perpetually provokes reflex action, and thereby brings on convulsions, which end in death, if all these irritating causes, which inevitably act upon the animal left in the open air, are cautiously removed, all danger is avoided, and the animal slowly recovers, if the dose of poison has not been too large. Place a frog under a glass bell, in a cellar, after poisoning it with the alkaloid, if left there during a sufficient time, the animal is found to recover perfectly; while another frog, *cæteris paribus*, rapidly dies in violent convulsions, when repeatedly excited. The effects of cold may also be brought forward as an instance; when moderate, they benumb, but do not freeze the tissues; a frog's heart may be brought to stop under the influence of cold; but give a more favorable medium, and it will recommence beating: if frozen, however, there is an end of all vital properties, its tissue having been disorganized.

Such is the process of reasoning brought to bear upon physiological questions; an entirely similiar method ought to be followed in clinical researches, for nothing resembles so much the action of poisons as that of morbid causes of an ordinary description: the analogy holds good even in those cases in which the disorder is wholly local, and does not end in death. Corvisart, in his celebrated work on Diseases of the Heart, relates the case of a young girl, who, in order to commit suicide, swallowed a very large dose of arsenic; some symptoms of poisoning followed, but the patient recovered, and several months later, died of consumption. In making the autopsy, a large pseudo-membranous cyst was found in the stomach; within this cyst was enclosed a solid mass of arsenic, which might have sufficed to poison nine or ten persons: this was the residue of the primitive dose, a very small portion of which had been absorbed, while the remaining part, incased in this accidental cavity, rested within the stomach without producing other effects than those of an ordinary and inoffensive tumor. Now, if the cyst had been a spotaneous morbid production, instead of resulting from the ingestion of a foreign substance, the consequences would have been identically the same, unless inflammation, suppuration, and resorption had taken place within the tumor.

If we examine some of the diseases which most frequently produce death, we shall equally be obliged to have recourse to general effects, in order to explain the mechanism through which the ultimate result is attained; numberless patients die of peritonitis, and in a very short space of time too; how does this take place? for peritonitis, at first sight, does not seem to interfere with any of the higher functions of life. Inflammation of the lungs or pleura frequently proves mortal in a few days; and in such diseases, the respiratory functions are of course impeded; yet mere asphyxia is evidently not the cause of death in acute cases of pneumonia; and, in affections which rapidly prove fatal, the animal, although deprived of food, cannot evidently be supposed to die from mere inanition in so short a space of time. It therefore becomes necessary to proceed to a rational investigation of *all* the diseased tissues, in order to ascertain the mechanism through which death has been produced: both nerves, muscles, glands, and other tissues; both the solids and liquids of the body require to be examined. If, for instance, the substance of the liver is submitted to chemical analysis, it is found to contain no more glycogenic principles; the total disappearance of which is, in our opinion, one of the most ordinary causes of death; for animals kept fasting for several days together still retain a certain amount of sugar in the blood. It therefore seems that life may be extinguished in two different ways: firstly, by the introduction of deleterious principles into the blood; and, secondly, by the total absence of indispensable elements in that fluid. From such instances, it is hardly difficult to judge what degree of scientific accuracy we may expect to find, in ordinary post-mortem examinations; local lesions are exclusively sought for, while the general disturbance passes unperceived; and, even supposing its existence to have been suspected during life, how difficult it becomes, in the human subject, to ascertain the fact after death! Twenty-four hours must have elapsed before we are allowed to touch the corpse: now, although in animals recently slain the natural properties of healthy tissues persist, during a certain space of time, we are perfectly aware that, after a few hours, they are no longer to be found: such, for instance is the case with respect to the galvanic excitability of muscles and nerves in birds and mammiferous animals. If, therefore, the effects of woorara, digitalis, and other poisons, which act upon these very tissues, had been exclusively studied in the human species, we should never have been able to ascertain by comparison the precise nature of the injury.

To observe Nature in her operations is the only method of acquiring the power of turning them to our advantage. The extraordinary progress of science and industry in the course of the present century, and the astonishing forces which have in consequence been placed at our disposal, have given rise to several false notions, which, however, are at the present moment currently received; and we frequently hear it asserted that man holds the elements under his control; that fire, water, steam, electricity, and all the powers of Nature, obey his commands. Now the exact reverse of these opinions is truth; and, as Bacon philosophically observes, "Naturæ non nisi parendo imperatur;" we are, in reality, only submitting to Nature at the very moment when she appears to obey our will. A singular phenomenon, of very unusual occurrence in our climate, has lately afforded us a striking instance of this. During the Aurora Borealis which took place at Paris in the course of last summer, strange and inexplicable perturbations were noticed in the action of the electric telegraph; the wires no longer conveyed the electric fluid to its ultimate destination, and for a short space of time, intelligence could no longer be communicated to Paris. The impossibility of controlling Nature was in this case placed in a very strong light; had we been acquainted with the law which directed the unusual effects of that unknown cause, we might have obviated the inconvenience which our ignorance compelled us to undergo. The situation in which medical men are placed, in the treatment of diseases, is exactly the same: to alter their course is beyond our power, but the accurate observation of their successive symptoms sometimes enables us to interfere at the proper moment.

It is, therefore, altogether indispensable to combine experimental researches with clinical observation ; to create artificial disease by known means in living animals, and proceed, immediately after death, to a rational post-mortem examination ; all the tissues must successively be compared to those in a normal condition, but the state of the blood more especially deserves our attention. Towards this subject the energies of all physiologists ought to be mainly directed. Organic chemistry, however, is unfortunately not in an advanced state, especially as regards the constituent principles of the animal organization ; and chemical analysis must therefore be in a great measure left aside when the properties of the blood are the subject of investigation ; in other terms, a physiological analysis is in this respect far preferable. Let the vital properties of the nervous system be brought into play, and modifications of the very highest importance will be discovered, which neither morbid anatomy, nor the known methods of analysis would have been able to render apparent. The same is the case with muscles—when poisoned by certain substances, they loose their contractile power, but no modification whatever is to be discovered in their chemical constitution. The blood therefore may naturally be expected, in various states of health and disease, to present changes which none but the physiologist can appreciate ; thus, when oxyde of carbon has been inhaled, the blood-globule is deprived of its characteristic property, of absorbing oxygen in exchange for carbonic acid ; the fact is ascertained by physiological experiments, but ordinary analysis gives no clue whatever to the solution of the problem. Far be it from me to disapprove the chemical researches of which the blood has been made the subject ; on the contrary, they deserve to be carried out on a more extensive scale than ever; but if performed apart from experiments on the living animal, their results will never contribute to the real progress of science.

The study of morbid principles can, therefore, alone enable us to discover the means of curing the disorders to which they give rise; and for this purpose two different systems might be adopted; firstly, to neutralize the morbid agents; and secondly, to eliminate them from the body. In the present state of our knowledge, we possess no means whatever of neutralizing their actions; as in the case of poisons, they must be expelled before they cease to act. To this result do all the efforts of Nature tend, and to this result also must all the physician's endeavors be devoted.

LECTURE XXI.—OPERATIVE PHYSIOLOGY—ON THE GASTRIC JUICE.

Summary: The Operation of Gastrotomy, in Dogs, usually not attended with any serious Inconvenience—Peculiar Properties of the Gastric Fluid—Its Acid Reäction—This property persists throughout the Entire Scale of Being—Utility derived from the Knowledge of the Fact by Comparative Anatomists—Glandular Elements which secrete the Gastric Juice—Not collected into a Conglomerate Body—The Tube-Cells contained in the Mucous Membrane of the Stomach, are the Real Source of this Fluid—Experimental Proofs of the Fact—Prévost and Leroyer's Experiments—The same Results obtained in other Herbivorous Animals—The Pyloric Portion of the Stomach alone concurs in this Secretion—The Production of Gastric Juice is Intermittent, and only takes place during the Process of Digestion—Remarks made by Dr. Beaumont on his Canadian Patient—Experiments made upon Animals lead to the same Result—Anatomical Modifications which occur for Notice in the Mucous Membrane of the Stomach when Digestion takes place—The Epithelium falls off—Various Substances eliminated by the Gastric Secretion, Prussiate of Potash, Salts of Iron, etc. etc. —Experimental Demonstration of the Fact—Difficulty of Ascertaining the particular Point in which the Secretion takes place—Intermittent character of the Secretion, even in Animals, the Stomach of which is always full—Chemical Reäctions of Urine during Abstinence and Digestion, in Herbivorous and Carnivorous Animals—Elimination of Urea, and Salts of Ammonia by the Gastric Cells, when the Kidneys have been removed.

GENTLEMEN—The various methods of obtaining gastric juice in large quantities having been fully described in our preceding Lectures, we shall now proceed to examine the principal properties of this important fluid.

The animal, into the stomach of which an opening was made last week, died shortly after the experiment, in consequence of peritonitis ; but this unfortunate result must not be attributed to the operation itself, which, in most cases, is not attended with any serious incovenvience, but rather to the animal's previous state of health, and those unfavorable predispositions too often observed in certain breeds of dogs, with respect to operations performed upon the abdominal organs.

The experiment has been successfully performed in the animal which we now place before you ; it appears, as you perceive, to enjoy perfect health, for the moment, and will furnish us, when necessary, with an abundant supply of gastric juice. Let us now, therefore, proceed to examine the characteristic properties of this secretion.

Although its chemical composition slightly differs in various animals, the gastric juice is constantly endowed with a strong acid reäction ; a fact established, towards the beginning of the last century, by the ingenious experiments of Réaumur ; this property of the secretion persists throughout the entire scale of being, and comparative anatomists have often been enabled, in consequence, to determine the precise seat of the stomach, in dobutful cases, the reäction of all the other parts of the digestive apparatus being neutral, or even decided by alkaline ; the use of colored tests enables therefore the observer to point out, with perfect accuracy, that portion of the intestinal tube which corresponds to the animal's stomach ; in certain fishes, for instance, no modification whatever in the shape or size of the alimentary canal corresponds to the place which the organ occupies ; so that without the use of colored tests, to discover its position would be altogether impossible.

But the glandular cells, which pour into the cavity of the stomach this powerful solvent, are not collected into a conglomerate mass, but disseminated over a large surface. In former times, the inventive powers of anatomists had been strongly tasked, for the purpose of discovering the organ which produces the gastric juice; and, among other viscera, the spleen had been invested with this property, but it is now universally acknowledged that the small tubular glands, which the microscope exhibits in the mucous membrane of the stomach, are, in reality, the only source from which this fluid is derived. But how is this to be experimentally demonstrated? The secretion of these little bodies cannot, as in the case of large conglomerate glands, be collected by means of a tube introduced into the excretory duct, and afterwards analyzed; now the mucous membrane, which contains them, possesses, at the same time, a considerable number of small mucous follicles, the structure and properties of which are entirely different from those of the above-mentioned glandulæ; direct experiments are, therefore, evidently required to settle the question. The first satisfactory solution of this difficulty is due to Prévost and Leroyer, of Geneva. These gentlemen have proved, by the following experiments, that the pyloric portion of the stomach alone enjoys the property of secreting the gastric juice. The stomach is opened in a living animal by an incision made upon its anterior surface, the abdominal walls having been previously divided; its inner surface is then gently wiped dry with a fine sponge, imbibed with a weak alkaline solution, care being taken of course not to rub off the epithelium; lastly, blue litmus paper is introduced into the cavity, the wound is closed, and after the lapse of a few hours the animal is killed. It will then be found in making the autopsy that, towards the pyloric extremity of the organ, the blue test paper has turned red, while in the other portions of the cavity it has retained its primitive color, a result which proves that the pyloric portion of the stomach containing the little tubular cells previously alluded to, is the real seat of the gastric secretion.

The experiment may be repeated on various kinds of animals, and invariably leads to a similar conclusion: thus in the horse, the pyloric portion of the stomach, and in the Ruminantia, the *red*, or pyloric portion of the apparatus, are alone endowed with the property of secreting the fluid, as the colored tests sufficiently evince. We may therefore consider it as an incontrovertible truth that towards the pylorus alone is the gastric juice produced.

But the secretion of these little glands is an intermittent one, in man as well as in the lower animals. Dr. Beaumont states that in the case of his Canadian patient, the fluid only made its appearance when food was introduced into the stomach, but as soon as the digestive process was over, no secretion whatever took place within the gastric cavity until the patient had made another meal. In the same manner, when a canula has been introduced into a dog's stomach, not a drop of liquid escapes, provided the animal has been previously kept fasting; but, as soon as it begins to feed, large quantities of gastric juice are at once seen to flow from the outer orifice of the tube; and the result may be obtained by merely showing the animal its food, as in the case of the salivary glands. In the dog which we exhibit here, the stomach is at present in a state of rest; but the sight of food will immediately stimulate the physiological activity of its glandular elements.

(The experiment is performed, and perfectly succeeds; a piece of meat being brought in, the gastric juice immediately flows in abundance from the open tube, before the animal has begun to feed.)

You perceive, gentlemen, that as in the case of most other glands, the process of secretion is not continually going on in the stomach. During the interval which separates one meal from another, the mucous coat is lined with a thick layer of grayish epithelium, and its reäction is alkaline; but as soon as the digestive process commences, it swells, becomes ingested, and grows red; the epithelium falls off in scales, and the gastric juice appears on the inner surface of the stomach, in the same manner as perspiration on the skin. It seems probable that some similar process takes place in all glands during the period of rest. Saliva, for instance, when it begins to flow, contains a considerable proportion of epithelium at first; but the liquid soon becomes transparent, and contains only a few epithelial cells.

There exists a remarkable difference between the gastric juice and these secretions we have already studied, with respect to the substances eliminated from the economy by the respective glands, after having been introduced into the vessels. We have shown you, for instance, that prussiate of potash and the salts of iron, in general, were not admitted into the salivary secretion; now, the reverse takes place in the case of gastric juice. When prussiate of potash is injected into an animal's veins, if one of the salts of iron is introduced into the stomach, the mucous membrane soon assumes a deep blue color in its pyloric portions, while digestion is taking place: the two substances having been brought into contact at the orifices of the tubular glands which secrete the digestive fluid, Prussian blue has been formed on the very spot. The same result may be obtained, but with much greater difficulty, by reversing the experiment, and injecting the salts of iron into the veins, while the prussiate of potash is taken by the mouth; and, lastly, when these two substances are separately injected into the vessels, the same effects are still observed; the reäction does not take place as long as they are contained in the blood, but is produced immediately after they have been set at liberty by the process of elimination.

In making the above mentioned experiment, I had entertained the hope of discovering the precise seat of the gastric secretion: the two substances being introduced into the circulation on distant points, I had expected to find the Prussian blue which results from their combination, contained in the very glands which separate them from the blood; but, in this respect, my expectations have not been realized; for on examining, under the microscope, the mucous membrane in which the reäction had taken place, I found that the ferro-cyanuret of iron was deposited on its surface, and not within the cavity itself of the secreting tubes.

We have just stated that the secretion is an intermittent one, and that this is the case in all animals; but how can the fact be proved in rabbits, and other Rodentia, the stomach of which is never empty? The inspection of the urine allows us, by an indirect method, to arrive at this conclusion; for, in all herbivorous animals, this fluid offers, during the process of digestion, an alkaline reäction, and becomes acid as soon as the process is over: in the Carnivora, the reverse takes place; and this difference results merely from the nature of their food; for dogs exclusively fed upon potatoes and other amylaceous substances, acquire in this respect the properties of herbivorous animals: their urine grows acid while the digestive organs are at rest, and alkaline as soon as they enter into an active state; while in rabbits, exclusively fed upon meat, the urine becomes, on the contrary, entirely similar to that of the carnivora. If, therefore, one of these animals is examined, when fed as usual upon vegetables, it will be found that, after a long period of abstinence (twenty-four hours, for instance), the urine becomes quite acid, we are therefore entitled to believe that digestion has been awhile suspended, although the mucous coat of the stomach remained perpetually in contact with portions of undigested food. But in certain cases of disease, the natural conditions of the gastric secretion being altogether perverted, an uninterrupted flow of liquid takes place. We have informed you, in a previous part of this course, that the stomach often eliminates certain bodies, which for various reasons can no longer escape through their usual channels. Prévost and Dumas ascertained, many years ago, that when both kidneys were removed, in a dog, several days would elapse before it was possible to prove the existence of urea within the blood by means of chemical tests: another, and a different mode of elimination had therefore been provided for this substance; but these gentlemen had made no attempt whatever to give an explanation of the fact, when I discovered unequivocal signs of the presence of urea and salts of ammonia in the gastric juice of dogs which had recently been deprived of both kidneys. It thererore appears that in this part of the body does the elimination take place during a certain lapse of time; and the animal's appetite does not diminish under these circumstances, nor is digestion impeded, but when the stomach can no longer perform its office in this respect, the noxious substances pass into the blood, and the symptoms of uræmia make at last their appearance. *London Medical Times and Gazette.*

EDITORIAL AND MISCELLANEOUS.

HEALTH OF OUR CITY AND ITS PROSPECTS—FINANCIAL AND EDUCATIONAL.

As we suggested in our last issue New Orleans is not to be visited by an epidemic of yellow fever this fall, and her "business season" opens with prospects more brilliant than she has ever known. True, we find in our last monthly report of mortality some two or three deaths by yellow fever. They may have been genuine cases of this disease. If they were, then yellow jack is playing a funny little trick on our people by just peeping in on us and scaring the timid: if they were not then he is only true to his established character of visiting us epidemically. All we wish now to impress on the reader is, that he may visit New Orleans in October with impunity. Cotton, King Cotton is "rolling in," as never before was known, and, of course, the "business men" are close after him, so that our streets wear a busy aspect. By the 15th of October the preliminary lectures in the New Orleans School of Medicine will commence, and no doubt students will be flocking in. The prospects of this institution are brighter now than ever. All her old friends stick to her ; she is daily forming new ones ; students are writing from all quarters ; her facilities for teaching are unequalled in the land ; and medicine will be taught within her walls and those of the Charity Hospital as the exigencies of the age demand. We can truthfully say that the New Orleans School of Medicine has been the first to leave the old narrow path, and open the broad road of real practical improvement in the business of teaching medicine, and although her bright example is being imitated, it is by no means equalled, as her strides are so long that it is a difficult task to keep up with her. She has the ambition to be the very best school in the land, and youthful ambition, in this republican country of ours, is almost illimitable in its successes.

We trust our students will come in early, as they will find the opportunities for dissection and clinical study unrivalled, and no man can acquire too much knowledge in either branch. Only think ! *Daily visits with any one or all of five physicians at the bedside of the sick in the hospital, and tri-weekly admissions to the dispensary of the school, which is flooded with patients ; and all without charge.* Can any other city in the union afford the same facilities, even if paid for ? No, not one. We are sorry to draw comparisons, but it is our honorable privilege, and in it can be found no just cause for offence. We took part in the medical regeneration of New Orleans ; we were determined that her light should no longer be hidden under a bushel, and our labor shall be ceaseless while we are in the field. She is to be (she is) the medical centre of the South. This, four short years of labor have made her, and four more will find her the medical centre of the Union. The soil is the richest, the seed have taken root, the tillage is deep, and the harvest is certain. Soon will it become a custom to announce our educational season; for its vast importance is being already felt by all classes of our citizens. We look for a throng of students this winter such as New Orleans has never before known, but such as she, above all, deserves.

REÖRGANIZATIONS OF MEDICAL SCHOOLS.—We notice that the New York Medical College has been reörganized. Only two of the old faculty are now connected with the institution, viz: Prof. Carnochan and Doremus. The other professors are, B. I. Raphael, A. K. Gardner, John O. Bronson, Charles A. Budd, A. Jacobi, Bern L. Budd, and D. Meredith Reese—the chairs of Materia Medica and Clinical Medicine being as yet vacant. When these chairs are filled, it will be seen that there are eleven professors, or four more than the old liners acknowledged to be necessary. The lectures commence on the 17th October, and close the middle of March, with four lectures each day. In other words, those at the head of this school are determined to test practically that thing called improvement in medical teaching. You are right, gentlemen, even if you are a little too radical. You deserve success, and we wish you all you richly merit.

In the Buffalo Medical College we perceive that Dr. Edward M. Moore has been elected to fill the Chair of Surgery vacated by Prof. Frank Hamilton, and we learn privately that our esteemed friend, Dr. Wm. Mason, of Buffalo, has been recently elected to the Chair of Physiology. The Buffalo school will thus be as good as new, and will maintain its high standing. Personal acquaintance with Dr. Mason warrants us in asserting that the Chair of Physiology will be thoroughly sustained. High attainments, industry, and energy never yet failed to succeed.

In the Shelby Medical College we notice that Drs. Daniel B. Cliffy and Abernathy, of Tennessee, have been elected to fill the chairs vacated by Professors Haskins and Maddin—the latter gentleman being transferred to the Chair of Surgery vacated by Professor May.

Professor Holbrook has resigned the Chair of Anatomy in the Charleston Medical College, and Dr. Miles, of Charleston, has been elected to the post.

The Memphis Medical College has now both the Drs. Yandell, senior and junior.

JOURNALISTIC.—The Cleveland Medical Gazette and Cincinnati Lancet and Observer, have amalgamated, and are edited by Drs. Weber, Stevens and Murphy. Success to them!

We are in receipt of the Columbus Review of Medicine and Surgery—a capital new bi-monthly. We exchange with pleasure

Dr. Bemiss retires from the Louisville Medical News, and leaves Dr. Benson sole editor.

MEDICAL PATENTS AND OUR NATIONAL CODE OF ETHICS.—A few months ago we called attention to the fact, that a doctor in Providence, R. I., was advertising a patent instrument (pessary) and that a number of other doctors—members of the American Medical Association—had their names affixed to the advertisement by way of recommendation of the instrument. We also called attention to the fact that this advertisement appeared in the Boston Medical and Surgical Journal. We also quoted the Code of Ethics of the Association, and showed conclusively that all these parties were grossly derelict.

In their issue of August 23d, the editors of the Boston Journal, by way of explanation say, that the doctors recommending the instrument signed the recommendation before the patent was procured—the signing being done in November, 1859, and the patent being procured in January, 1860.

Why the signing at all, gentlemen? Is it necessary or customary amongst our fraternity? Is it strictly up to the spirit of our Code, either on the part of the inventor of the instrument or the signers? Again, have these doctors never seen their names in your journal, as mentioned? Do they not see their names there weekly in recommendation of this patent pessary? Has the patentee a right to their names? Actions speak louder than words.

As to the matter of "the letter" and "the spirit" of our Code, we assert the former, that it is the spirit, and the spirit only that is to be the object of solicitude. Once make it secondary to the letter, and good bye to all observance of our obligations to each other.

PAMPHLETS RECEIVED.—We are under obligations to Prof. W. H. Byford, of Chicago, for a most interesting essay written by himself, and entitled "Inflammatory Affections of the Breast."

Also, to Dr. T. Gaillard Thomas, of New York city, for a copy of a lecture delivered by himself in the University Medical College, and entitled "Mammary Abscess occurring during Lactation." Like all Dr. T.'s productions, it is strictly practical, and bears the impress of the hand of the real laborer.

EXCERPTA.

The Arsenic Eaters of Styria.—*By Charles Heisch, Lecturer on Chemistry at the Middlesex Hospital.*—At the last meeting of the Manchester Philosophical Society I observe that Dr. Roscoe called attention to the arsenic eaters of Styria. Having for the last two years been in commucation with the medical men and other residents in the districts where this practice prevails, I shall feel obliged if you will allow me through your journal to make known the facts I have at present collected. The information is derived mainly from Dr. Lorenz, Imperial Professor of Natural History, formerly of Salzburg, from Dr. Carl Arbele, Professor of Anatomy in Salzburg, and Dr. Kottowitz, of Neuhaus, besides several non-medical friends. If human testimony be worth anything, the fact of the existence of arsenic eaters is placed beyond a doubt. Dr. Lorenz, to whom questions were first addressed, at once stated that he was aware of the practice, but added, that it is generally difficult to get hold of individual cases, as the obtaining of arsenic without a doctor's certificate is contrary to law, and those who do so are very anxious to conceal the fact, particularly from medical men and priests. Dr. Lorenz was, however, well acquainted with one gentleman, an arsenic eater, with whom he kindly put me in communication, and to whom I shall refer again more particularly. He also says that he knows arsenic is commonly taken by the peasants in Styria, the Tyrol, and the Salzkammergut, principally by huntsmen and woodcutters, to improve their wind and prevent fatigue. He gives the following particulars :

The arsenic is taken pure in some warm liquid, as coffee, fasting, beginning with a bit the size of a pin's head, and increasing to that of a pea. The complexion and general appearance are much improved, and the parties using it seldom look so old as they really are; but he has never heard of any case in which it was used to improve personal beauty, though he cannot say that it never is so used. The first dose is always followed by slight symptoms of poisoning, such as burning pain in the stomach and sickness, but not very severe.

Once begun, it can only be left off by very gradually diminishing the daily dose, as a sudden cessation causes sickness, burning pains in the stomach, and other symptoms of poisoning, very speedily followed by death.

As a rule, arsenic eaters are very long-lived, and are peculiarly exempt from infectious diseases, fevers, etc.; but unless they gradually give up the practice, invariably die suddenly at last.

In some arsenic works near Salzburg with which he is acquainted, he says the only men who can stand the work for any time are those who swallow daily doses of arsenic, the fumes, etc., soon killing the others. The director of these works, the gentleman before alluded to, sent me the following particulars of his own case. (This gentleman's name I suppress, as he writes that he does not wish the only thing known about him in England to be the fact that he is an arsenic eater; but if any judicial inquiry should arise which might render positive evidence of arsenic eating necessary, his name and testimony will be forthcoming.)

"At 17 years of age, while studying assaying, I had much to do with arsenic, and was advised by my teacher, Mr. Bonsch, Professor of Chemistry and Mineralogy at Eisleben, to begin the habit of arsenic eating. I quote the precise words he addressed to me. 'If you wish to continue the study of assaying, and become hereafter superintendent of a factory, more especially of an arsenic factory, in which position there are so few, and which is abandoned by so many, and to preserve yourself from the fumes which injure the lungs of most, if not of all, and to continue to enjoy your customary health and spirits, and to attain a tolerably advanced age, I advise you—nay, it is absolutely necessary, that besides strictly abstaining from spirituous liquors, you should learn to take arsenic; but do not forget when you have attained the age of 50 years gradually to decrease your dose, till from the dose to which you have been accustomed, you return to that which you began, or even less.' I have made trial of my preceptor's prescriptions till now, the 45th year of my age. The dose with which I began, and that which I take at present, I enclose; they are taken once a day, early, in any warm liquid, such as coffee, but not in any spirituous liquors." The doses sent were, No. 1. original dose, three grains; No. 2, present dose, twenty-three grains of pure white arsenic in coarse powder. Dr. Arbele says this gentleman's daily dose has been weighed there also, and found as above. Mr. — continues: "About an hour after taking my first dose (I took the same quantity daily for three months), there followed slight perspiration with griping pains in the bowels, and after three or four hours a loose evacuation; this was followed by a keen appetite, and a feeling of excitement. With the exception of the pain, the same symptoms follow every increase of the dose. I subjoin as a caution, that it is not advisable to begin arsenic eating before the age of twelve or after thirty years." In reply to my question, if any harm results from either interrupting, or altogether discontinuing the practice, he replies, "Evil consequences only ensue from a long-continued interruption. From circumstances, I am often obliged to leave it off for two or three days, and I feel only slight languor and loss of appetite, and I resume taking the arsenic in somewhat smaller doses. On two occasions, at the earnest solicitations of my friends, I attempted entirely to leave off the arsenic. The second time was in January, 1855. I was induced to try it a second time, from a belief that my first illness might have arisen from some other cause. On the third day of the second week, after leaving off the dose, I was attacked with faintness, depression of spirits, mental weakness, and a total loss of the little appetite I still had; sleep also entirely deserted me. On the fourth day I had violent palpitation of the heart, accompanied by profuse perspiration. Inflammation of the lungs followed, and I was laid up for nine weeks, the same as on the first occasion of leaving off the arsenic. Had I not been bled, I should most likely have died of appoplexy. As a restorative, I resumed the arsenic eating in smaller doses, and with a firm determination never again to be seduced into leaving it off, except as originally directed by my preceptor. The results on both occasions were precisely the same, and death would certainly have ensued had I not resumed arsenic eating." One of the most remarkable points in this narrative is, that this gentleman *began* with a dose which we should consider poisonous. This is the only case of which I have been able to obtain such full particulars, but several others have been mentioned to me by those who knew the parties and can vouch for their truth, which I will briefly relate.

One gentleman, besides stating that he is well aware of the existence of the practice, says he is well acquainted with a brewer in Klagenfurth, who has taken daily doses of arsenic for many years. He is now past middle life, but astonishes every one by his fresh juvenile appearance; he is always exhorting other people to follow his example, and says—"See how strong and fresh I am, and what an advantage I have over you all! In times of epidemic fever or cholera, what a fright you are in, while I feel sure of never taking infection."

Dr. Arbele writes—"Mr. Curator Kursinger (I presume curator of some museum at Salzburg), notwithstanding his long professional work in Lungau and Binzgau, knew only two arsenic eaters—one the gentleman whose case has just been related, the other the ranger of the hunting district in Grossarl, named Trauner. This man was at the advanced age of 81, still a keen chamois hunter, and an active climber of mountains; he met his death by a fall from a mountain height, while engaged in his occupation. Mr. Kursinger says he always seemed very healthy, and every evening regularly, after remaining a little too long over his glass, he took a dose of arsenic, which enabled him to get up the next morning perfectly sober and quite bright. Professor Fenzl, of Vienna, was acquainted with this man, and made a statement before some learned society concerning him, a notice of which Mr. Kursinger saw in the *Wiener Zeitung*; but I have not been able to find the statement itself. Mr. Krum, the pharmaceutist here, tells me that there is in Sturzburg a well-known arsenic eater, Mr. Schmid, who now takes daily twelve and sometimes fifteen grains of arsenic. He began taking arsenic from curiosity, and appears very healthy, but always becomes sickly and falls away if he attempts to leave it off. The director of the arsenic factory before alluded to is also said to be very healthy, and not to look so old as 45, which he really is.—*Phar. Journal.*

A New Mode of applying Chloroform in Neuralgia, etc.—*By Mr. Little.*—"During my residence in Singapore, East Indies," writes Mr. Little, "I was, at one time, in the habit of using liquor ammoniæ to produce an immediate blister, when instantaneous counter-irritation was thought necessary in certain cerebral affections, etc., a piece of lint soaked in ammonia being applied to the part, and covered with oil-silk, when in a few minutes so much irritation was produced as to raise a blister. In administering chloroform to my patients I noticed that their lips were often partially blistered by it; and recollecting the mode of using ammonia, I thought of using chloroform in the same way, but found that neither oilskin nor gutta percha tissue would answer. I then used a watch-glass to cover the lint soaked in it, and with the best effect.

"The manner of application is, to take a piece of lint, a little less in size than the watch-glass to be used (which need not be more than two inches in diameter), to put it on the hollow side of the glass, to pour on it a few drops of chloroform sufficient to saturate it, and then to apply it at once to the part affected, keeping the edges of the glass closely applied to the skin, by covering it with the hand, for the purpose of keeping it in position, as well as of assisting the evaporation of the chloroform. This may be done from five to ten minutes, according to the amount of irritation wished for.

"The patient, during this time, will complain of the gradual increase of a burning sensation (not so severe as that produced by a mustard sinapism), which reaches its height in five minutes, and then abates, but does not entirely disappear for more than ten minutes.

"To insure the full operation of the remedy, it is necessary that the watch-glass be rather concave; that it be closely applied to the skin, and that the hand applied over it be sensibly warm. The immediate effect of the application is to remove all local pain in neuralgia, and relieve that of rheumatism.

"Its effects on the skin are at first a reddening of the cutis, which, in some cases, is followed by desquamation of the cuticle ; but this depends on the part to which it is applied, and also upon the susceptibility of the individual. In some cases, if the application has been prolonged, a dark-brown stain remains even for a week or ten days, the same effect as sometimes follows the use of a mustard synapism.

"In Singapore, I have used chloroform after this fashion, in various neuralgias of the face, in inflammations of the eye and ear, in one case of angina pectoris, in several cases of neuralgia affecting the abdominal parietes, in lumbago, dysmenorrhœa, and in pain attending congestion of the ovary, etc.

"Personally, I can testify to its great efficacy in two severe attacks of rheumatic inflammation of the eyes, in which the pain came on periodically, about 3, A. M., with such severity that I thought the loss of sight itself would be preferable to its continuance. All other remedies, such as blisters, leeches, opium externally and internally, belladonna, etc., were of no avail in soothing the pain ; water almost boiling applied by a sponge, giving only a little relief. I then thought of this use of chloroform, remembering how much it had benefited my patients in other similar affections. The first night, the application of it to the temple relieved the pain in ten minutes ; on its return the next night, the application again relieved it ; and four times only was it required to remove completely the local pain ; allowing, in the meantime, constitional remedies to produce their effect. Since my return to this country, I have recommended this remedy, on several occasions, to persons suffering from neuralgia of the face and head, and always with the same good effects as in India ; and, the other evening, one of my domestics was quickly and effectually relieved by it, of a painful spasmodic contraction of the platysma myoides muscle, which prevented her raising her head from her chest. The chloroform was applied as directed, with immediate benefit, and next morning she was quite well, though in previous attacks, several days elapsed before relief was obtained. I have mentioned this method to several medical men of this city, who have found it of great benefit ; and that it may be more extensively known, is my reason for now bringing it before the profession.—*Edin. Med. Journal*, *April*, 1860.

Observations on External Turning. — Prof. Carl Esterle gives an elaborate exposition of the subject of external turning. In some of the applications of the operation his views and experience are extremely interesting. He commences by citing the opinions of Wigand, Matteo, and Stoltz ; and then considers the conditions which favor spontaneous evolution, and the manner of operating. The patient is to lay so as to relay the abdominal muscles as much as possible. The method pursued by nature in spontaneous version is to be closely followed. The partial peripheral contractions of the uterus which diminish the transverse diameter are to be replaced by lateral compressions, which must gradually merge into a compressing stroke on one side near the fundus, on the other near the os uteri. This is much aided by gentle blows applied alternately to the apices of the ovum. These blows may be repeated more quickly at a later period by acting on the one side upon the head, while with the other hand a fixed point is maintained upon the opposite extremity. This will not always succeed in removing the head at the first attempt. When effected the longitudinal position is to be maintained. This is to be done by the recumbent posture and bandages. The author's observations were made upon 500 pregnant women, who were mostly examined in the seventh and eighth months. Among these were detected 22 complete transverse presentations. Nine were rectified spontaneously; in ten external turning was carried out; in two turning by the head was effected by combined internal and external manipulation; and in one case internal turning brought down the breech. In the ten cases of external turning, placenta prævia was present once: pelvic contraction of the first degree twice; excessive obliquity of the uterus three times. In some instances the cause of the cross presentations was probably strong compression of the abdomen for the purpose of concealing pregnancy; and perhaps, also the weight of the cloths, which, as countrywomen wear them, presses almost entirely on the fundus uteri.

We give three of his cases as examples of the practice:

Case 1.—A woman, pregnant thirty-four weeks; head high to left; back forwards, breech towards right illium, liquor amnii copious. It was sought to bring the head down, which was so far successful that it was brought within reach; but as soon as the pressure was removed it receded. After two unsuccessful attempts to retain the head the breach was brought down. This was effected without much difficulty, and was maintained. On repeated examinations the longitudinal direction of the fœtus, with the breech presenting, was constantly verified. Twelve days after the last examination labor began; the occiput was presenting in first position, and the labor proceeded normally.

Case 2.—Pregnancy near termination. Twins diagnosed, one fœtus in first head position, and one in cross-presentation, head to the left, back backwards. During labor the first fœtus had to be delivered by forceps. External turning was resorted to to rectify position of the second. The head was easily brought down, and while assistants by external pressure maintained it *in situ*, the membranes were ruptured and the head was born in the first position.

Case 3.—A woman, pregnant thirty-two weeks. Head high to the right; back backwards. External turning proved very difficult and tedious; but by persevering especially with the methodical strokes, it succeeded in placing the head in the second position. Upon this the customary bandage was applied, and recumbency on the right side prescribed. After a short time, however, the woman was unable to bear the bandage, or to lay in the position ordered. When examination was made four days after, the head had moved, but not quite back to its original place; it had passed over to the opposite side, over the left crista ilia. The causes of this side movement were the great quantity of liquor amnii, the great flaccidity of the uterine walls, and above all, a marked inclination of the uterus to the right, in consequence of which the breech, which had been brought to the fundus, continued to move in the direction of this inclination, and was supported by the laying on the right side, as ordered. External turning was performed a second time successfully.

EXPERIMENTAL INQUIRY INTO THE ACTION OF ALCOHOL ON THE NERVOUS SYSTEM.—Dr. W. Marcet relates (*Medical Times and Gazette*, March 3 and 31, 1860) some experiments made by him to determine the action of alcohol on the nervous system. He gives the following conclusions as the result of his investigations :

1. That alcohol acts through the circulation principally, though not exclusively, on the nervous centers, by means of absorption.

2. That alcohol exerts a slight but decided action on the nervous centers through the nerves, independently of the circulation.

3. That the influence transmitted through the nerves may be of two kinds:

(*a.*) It may give rise to a shock, or temporary complete suspension of sensation and of muscular motion (with the exception, perhaps, of that of the eyelids), although the respiration continues.

(*b.*) It may produce no other visible effect than shortening life.

ON AMPUTATION ON THE HIP JOINT. By DR. JULES ROUX. (*Gazette Hebdomadaire*, May 4th and 11th, 1860.) —In our last issue we presented our readers with a short abstract of a paper by Dr. Roux, on secondary amputations after gunshot injuries of the bones ; and in a recent communication to the Academy of Sciences he reported six cases of coxo-femoral disarticulation, performed in his wards at the St. Mandrier Hospital, at Toulon, upon the sailors and wounded soldiers of the Italian army. Two of these cases resulted in death, but both sailors had comminuted fractures of the upper third of the thigh-bone, with laceration of the femoral vein and extensive injury of the soft parts. The patients succumbed, one in five; the other in eight hours; thus adding confirmatory evidence against the success of primary amputation at the hip. In the four successful cases the operation was secondary or consecutive, and the cure was complete on the seventy-first, sixty-sixth, fifty-eighth, and seventy-seventh days after the operation. All the patients, except the two fatal ones, were placed fully under the influence of chloroform, and the bleeding vessels, including the femoral and larger veins, required at least sixteen ligatures. The dressings consisted in the application of ten twisted sutures, with adhesive strips and a piece of greased lint over the wound. A drainage tube or tent was retained in the parts for twenty-five or thirty days. Light but nourishing diet, Bordeaux wine, a decoction of quinine and aconite, with attention to the bowels and secretions, cleanliness and ventilation, constituted the after treatment.

Dr. Roux also gives a statistical table of the cases of coxo-femoral disarticulation occurring in the French marine hospitals. It contains twelve cases, including his own, of which seven terminated fatally. Five of these operations were primary, or performed several hours or days after the accident, and all were unsuccessful; four were secondary or mediate, forty-two days to seven months intervening between the accident or disease and date of operation, and three were cured; three were ulterior or consecutive, the operation being performed one or several years after the receipt of the disease or injury, and only one resulted in death.

The author lays it down as a rule, that comminuted fracture of the thigh-bone, in any portion of its extent, rarely requires amputation; and insists, when the fracture is seated in the upper third of the bone that amputation at the hip-joint should not be performed. In support of his opinion he gives a brief account of twenty-one cases received into the St. Mandrier Hospital after the Italian war, in which the superior third of the thigh bone had been fractured by balls, and in all the fracture had become consolidated. Secondary coxo-femoral disarticulation was practised successfully in one case, six months after the occurrence of the injury, and the remaining twenty were cured. Amputation should, therefore, as a rule, be confined to those cases where the two lower thirds of the bone are injured; and if, after several months a cure is not effected, and amputation becomes necessary, whatever may be the portion of bone fractured, coxo-femoral amputation should be preferred, as in this way all the diseased bone is gotten rid of. The longer the operation is delayed the greater is the chance of recovery.

Consolation for Drunkards.—Dr. Smirnoff states that he has become convinced by repeated trials that the *asarum Europæum* well deserves the reputation it has obtained in Russia of being an excellent remedy for the effects of drinking. The influence of a continuous abuse of alcoholic drinks is first exerted locally, but afterwards dyspepsia is produced: and the nutrition and functions of the entire economy, especially of the central portions of the nervous system, becoming interfered with, the blood itself being loaded with an injurious foreign material, the *dyscrasia potatorum* is at last completely established. The asarum fulfills various indications, acting beneficially on the alimentary canal in those cases in which the digestive powers are so much at fault. Its aromatic principle confers upon it a stomachic power, and regulates the condition of the intestinal discharges, producing vomiting and purging when given in large doses. Its most beneficial action, however, is manifested on the defective appetite and by its counteracting the invincible longing for alcohol. The horrible sensations with which the drinker awakes in the morning, and which impel him to seek temporary and delusive relief from renewed libations, are much blunted and mitigated by means of a glass of strong infusion of asarum and some other nervine, *e.g.* valerian. Its immediate effect is often to produce vomiting, and sometimes purging; but the painful sensations of the epigastrium undergo relief, and the appetite becomes invigorated. Persons who have been long habituated to alcoholic drinks cannot, however, have these suddenly suppressed with impunity; and in such case the author gives the asarum in brandy, applying at the same time, a blister or an issue to the pit of the stomach. By this means the normal activity of the stomach becomes excited and the longing for alcohol diminished. The author, however, cannot agree with those who would still allow a small quantity of spirits to habitual drinkers, even when the morbid desire for it has become appeased. The continuous use of a decoction of asarum, even when it does not succeed in extinguishing the desire for alcohol, always supports the powers of the patient; and it is remarkable in some cases, in which the individuals have been long accustomed to periodical intervals of drunkenness, ending in delirium tremens, how much longer those intervals will become, and how much less likely delirium tremens is to recur. The patients themselves are sometimes surprised at the comparative impunity with which they can continue their drinking. The author prescribes three or four glasses a-day of an infusion made with ℥iij of asarum root, ℥j of valerian root, and ℥½ of orange-peel, but he does not state the quantity of water employed. In cases of drunkenness another formula is composed of decoction of asarum (made by boiling from ℥½ to ℥j of the root) ℥vj, tinct. of valerian ʒij to ʒiij, Sydenham's laudanum gtt. xij, syrup of orange-peel ℥½. A tablespoonful of this is taken every two hours. He finds from two to five grains of bismuth taken four times a-day a valuable adjunct. He has also found the following popular Russian remedy of service in cases of drunkenness: ℞. Ammon. carb., ℥½; aceti vini, lbj.; oxymel scill., ℥½. Two tablespoonfuls every two hours.—*Med. Zeit. Russland and Med. Times.*

FŒTUS CARRIED TWENTY-TWO MONTHS BEYOND TERM.—*Dr. James M. Buzzell*, of Springfield, communicated to the Boston Society for Medical Improvement, the following case.

The subject of it, aged forty-two years, had had five children by her first husband. A year after his death, in 1850, she was married a second time. After her second marriage she had several miscarriages, and in the month of November, 1857, she became convinced that she was again pregnant, from the quickening, and other usual signs of pregnancy which she then experienced. By great care on her part she went the full period of pregnancy before any symptoms of labor appeared. At the time she expected to be confined, her breasts filled with milk, and her nurse was obliged to draw them for several days. In the month of April, 1858, she was supposed to be in labor, and sent for her family physician to attend her. He had been skeptical in regard to the fact of her pregnancy, but on his arrival, supposed he had formed an incorrect diagnosis. The pains, however, were not constant or of much force, and soon subsided entirely, never to return as true labor-pains, although she had at intervals, for two months afterwards, occasional attacks of pain in the sides, which finally ceased. She had menstruated some two or three times during the nine months of gestation, as had been the case with her once or twice before, during pregnancy, and afterwards the catamenia appeared at irregular intervals up to the time of her death, though the quantity was small. She enjoyed, to all appearance, good health up to October last, was fleshy, and capable of performing considerable labor. After the time of expected confinement, the size of the abdomen gradually lessened for about six months, when the *tumour*, as it was now supposed to be, was as large as a full-grown fœtus.

In October last, she fell down a flight of steps, by which she received a severe shock. She afterwards complained greatly of pain in the back and bowels, Dr. Buzzell first saw her at this time. She had much fever, and great pain and tenderness of the abdomen, which made it impossible to make a satisfactory examination for two or three weeks. There was a severe cough, which aggravated her pain. Nausea and vomiting occurred every two or three weeks. As soon as a favorable opportunity occurred, Dr. B. made an examination per vaginam, and found the os uteri entirely closed, and the cervix obliterated; the uterus forming a solid tumor, fixed and immovable by any pressure of the hand or finger. Four weeks after the accident a diarrhœa occurred, of a large quantity of offensive matter, which was not seen by Dr. Buzzell. The paroxysms of nausea and vomiting increased in frequency and intensity until her death, which took place on the 14th of February.

At the *autopsy* a very extensive adhesion was found between the fundus of the uterus and the small intestines, and also between its side and the sigmoid flexture of the colon. The Fallopian tubes and ovaries were found in their natural relations to the uterus. The uterus contained a fœtus in the natural position for delivery, but no trace of a placenta could be found. There was about a pint of thick, yellow fluid in the uterine cavity. An opening in the left side of the uterus communicated with the interior of the colon, and the left hand and forearm of the fœtus were passed into the bowel, as far as the elbow. Feculent matter had passed into the cavity of the womb. The os uteri was entirely closed, and no trace could be found of it upon the inside.—*Boston Medical and Surgical Journal*, June 14th, 1860.

SMOKERS IN NEW YORK.—According to the *Merchants' Magazine*, in New York, city there are about 200,000 smokers, each using two cigars per diem, which make 400,000 every day. These will cost, for labor alone, at $5 per thousand, the enormous sum of $8,760,000 annually, when made by hand. There are imported into New York, annually, 12,000,000 lbs. of tobacco, distributed as follows: Connecticut, 10,000 cases of 400 lbs. each; Pennsylvania, 6,000 cases, 400 lbs. each; Ohio, 10,000 cases of 370 lbs. each. From New York to Massachusetts, 5,000 cases of 400 lbs. each. We also import 6,000,000 lbs.

from Havana, and a quantity from other Spanish ports: and we are told that, on an average, 20 lbs. of tobacco are required for every 1,000 cigars, and we can easily calculate there are 900,000,000 cigars made in the city of New York alone in a year.

ON THE EFFICACY OF SOME ANTIPYRETIC REMEDIES.—*By Prof. W. Vogt.* In a very extensive treatise on the antipyretic method of treatment, and its use in acute diseases in general, the author discusses the relative value of the different antipyretic remedies. In regard to the most important of these, *quinine* and *veratrine*, the author's experience seems to show that their power of suppressing fever appears to be nearly equal, if not somewhat stronger in veratrine. The action of veratrine seems to be more direct; it takes place without previous excitement, and proceeds principally from the spinal marrow. That of quinine, on the contrary, emanates, it seems, from the brain, and is preceded by excitement. It is more indirect, and rather a secondary than a primary effect. Hence it follows that veratrine probably deserves the preference in febrile diseases which are violent and rapid in their course. The excellent results which the author has observed from the administration of veratrine in pneumonia, induced him to abandon the use of quinine in the treatment of this disease. From this highly beneficial effect of veratrine, the author was led to suppose that it would be equally serviceable in puerperal fevers of a malignant and violent character. In typhoid fever, it is to be preferred at the commencement of the disease; so much the more the higher the fever is, the greater a general hyperæmia, and the stronger and more active congestions of the brain are present. In cases taking a slower course, if the febrile reäction is less violent, if the hyperæmia is owing to venous stagnation, and finally, in the later periods of the fever, where an anæmic and adynamic condition is observable, quinine is to be preferred. Veratrine has a stronger antipyretic effect than quinine. When the eruptive fevers show a tendency to real local inflammations, veratrine deserves the preference. The author arrived at this conclusion from its favorable action in pneumonia and those puerperal fevers which are distinguished by intense local inflammation. If the fever appears to be, however, more independent, and not accompanied by any essential local inflammation, quinine is preferable, provided that the character of the case does not present decided indications for the use of veratrine. The toxical effects of quinine are more serious, and cannot be watched as easily as those of veratrine. In typhoid fevers it was unmistakable that veratrine did more toward relieving the head from unpleasant symptoms than quinine. The latter admits of the doubt whether, after its exhibition, the cerebral affection is owing to the disease or to a remaining intoxication, produced by quinine. If the cerebral symptoms are caused more by venous congestion, quinine may act more favorably than veratrine. The author prefers, consequently, veratrine as a general antipyretic ; in regard to other effects, however, quinine surpasses veratrine in malarious fevers of a less rapid course, in other febrile diseases during the later periods, where symptoms of anæmia and adynamia have commenced to show themselves, and where the fever is to be slowly suppressed.

Among other antipyretic remedies recently used, the author mentions *digitalis* and the *alcoholic remedies*, which were employed already by Brown. He has convinced himself of the powerful antipyretic properties of digitalis in a small number of cases of pneumonia, but was deterred from further experiments by the dangerous symptoms produced by the drug. The author has not tried the method proposed by Todd, according to which fever and inflammations are treated by larger doses of alcoholic remedies.—*N. Amer. Med. Churg. Review, from German Journals.*

CHLORODYNE; ITS HISTORY, PREPARATION, PROPERTIES, THERAPEUTIC EFFECTS, DOSES, ETC.—*History.*—Chlorodyne was invented in the year 1848 by Dr. Browne while officiating in his medical capacity during the prevalence of cholera and diarrhœa among the troops in India, and was introduced to the notice of the faculty by him as "a combination of perchloric acid with a new alkaloid."

Preparation.—From Dr. Ogden's analysis it appears to be composed as follows: Chloroform, six drachms; tincture of capsicum, half a drachm; oil of peppermint, three drops; muriate of morphia, eight grains; perchloric acid, twenty drops; Steele's hydrocyanic acid, twelve drops; tincture of Indian hemp, one drachm; treacle, one drachm. Dissolve the morphia in the perchloric acid; then add the tincture of hemp, capsicum, peppermint, and chloroform, and lastly, the treacle and prussic acid.

Properties.—Chlorodyne is a volatile liquid possessing a pungent smell and taste. It is soluble in alcohol, but insoluble in water; but may be conveniently administered in that liquid by suspending it in a little mucilage. The alkalies and alkaline salts decompose it. In color it is dark brown, and in weight equal to twice its bulk of water. It is anodyne, sedative, diaphoretic, astringent, antispasmodic, diuretic, etc. Unlike the preparations of opium, it does not produce headache, giddiness, prostration of strength, nor stupor; but in large doses, and from a constipated state of the bowels, it is liable to produce nausea, which in the former case may be relieved by a small dose of sal-volatile, and in the latter by recourse to aperients.

Therapeutic effects.—The changes produced by this preparation on the system, are—first, a gentle heat at the stomach, followed by a general glow and total absence of pain; second, a calm and refreshing sleep; and, third, an increase in the pulse from a "small, weak, thready, hurried, or bounding one to a full, yielding, elastic, natural sort of one, decreasing in frequency of beats as well as resistance to a healthy condition."

Of its powers in the cure of consumption, Dr. Stonehouse remarks: "The cases (among others) in which I have employed it have been twelve cases of phthisis; eight of these patients had been examined by other medical men, and had been regarded as genuine cases of consumption, so that the nature of the disease does not rest upon my testimony alone. They were all well-marked cases: for I do not mention several others in an incipient stage. Two of the cases were in the last stage—*i e.* cavities had formed in the lungs; two others were bordering upon this stage. The remaining eight were in the second stage, that of softening; in five of these hæmoptysis was a prominent symptom. All these cases have done or are doing exceedingly well. Five of them have quite recovered; the others, with one exception, are in a fair way towards recovery."

Doses.—The dose of this preparation must be regulated according to the nature of the complaint. As an anodyne for febrile, inflammatory, or neuralgic affections, the dose is from ten to thirty drops; diaphoretic, in cases of coughs, colds, etc., ten to twenty drops; sedative, in consumption, etc., twenty to fifty drops; antispasmodic, in gout, rheumatism, etc., twenty to forty drops; astringent, in cholera diarrhœa, etc., fifty to one hundred drops. It is best administered on lump sugar, and given at intervals from every half hour to every four hours.—*N. American Medical Chirurgical Review, from Chemist and Druggist*, February 15, 1860.

A CLINICAL LECTURE, AT THE ROYAL FREE HOSPITAL, LONDON, ON DELIRIUM TREMENS.—*By Dr. Brinton.* The patient, a cabman, aged about 33, long addicted to hard drinking, and now in the fourth or fifth day of his third attack of delirium tremens, affords a good illustration of some practical points in the cure of this dangerous malady. His face is wild, flushed and perspiring, and his noisy, struggling delirium, which has been incessant during the twenty hours now past since his admission, evidently, from his language, swarms with the delusions incident to this state. Amongst these may perhaps be included that of expecting us to know all his symptoms, without any observation or inquiry, every approach to which he treats as an insult.

However, we want little oral information. His pulse, though very quick (120), is wiry rather than feeble. His epigastrium is tender. His tongue, dry and furred, with red edges, is very tremulous. These facts, taken with those just stated, and the circumstance that his present attack winds up a tolerable continuous debauch of some ten days' duration, afford a clue to what will probably be a successful plan of treatment.

Opium and the "habitual stimulus" are usually regarded as the specifics for this malady. Confessing their frequent value, I would warn you against any but their casual and deliberate use. In other words, apart from some special risks occasionally contraïndicating them in even moderate doses, in this as well as some allied states in which they would otherwise be demanded, there seem to me great perils from their copious administration as a matter of routine.

Let us try to reason out the therapeutics of the malady. How do people die of uncomplicated delirium tremens? Generally, I make bold to say, of exhaustion. And what exhausts them? The perpetual delusions, ravings, shoutings, movements, of this state. It is a most invidious analogy to offer; but I venture to say that any one who has ever spoken in public for one hour together, would, if he multiplied that hour by the factor requisite to bring it up to the many days sometimes passed in vociferous delirium by a patient, quite understand the perilous degree of exhaustion necessarily present. Besides, the morbid impressions are scarcely less injurious and fatiguing than the actions of the delirious state. Sensation, if varied and intense enough, is very hard work for the nervous system.

Every one who has ever foolishly attempted to "do" a gallery of pictures, must allow that it is easy to tire out the brain through the eyes in a very short time.

The first indication of treatment, then is to prevent exhaustion; and in fulfillment of this, there is much to do and to avoid. A comfortable room, perfectly well lit as well as aired; a good nurse, with quiet, decisive, fearless, manners; an absence of all that is likely to excite and irritate—if possible, that is, a separate ward. Above all, no mechanical restraint.

This prohibition cannot be too stringently enforced. No matter to what degree reason may be degraded or dethroned, the delirious patient always seems sensible of the debasement and brutality implied by straps and band.

If one nurse could not restrain a patient, I should call in two, or ask for the further assistance (allways generously given) of any or every convalescent in the hospital. But I should never strap or tie down a patient, however delirious. I suppose, in the last seventeen years, I have seen and treated a fair proportion of such cases. But though I have once or twice walked up to a raging patient whom nobody had for hours dared to approach, to loosen his bonds, I never had occassion to regret it. Indeed, I have always found that the more limited, temporary and casual that graduated restraint of the patient which the hands of others afford, the better. Watching, and persuasion generally suffice.

The same indication, again, dictates the drugs to be administered. That there are instances in which a delirious patient, exhausted by long habits of tippling, or prostrate under some independent disease or injury, is best treated by the stimulus he has latterly been deprived of, I do not deny. The subject of our observations, however, not only illustrates the golden rule of practical physic—to treat the case rather than the malady, and to avoid giving such and such drugs merely because the disease is diagnosed to be so and so—but represents, I think, that common and important variety of delirium tremens in which this routine treatment is specially to be avoided. In plain English, when a patient comes to me with delirium tremens as the climax of a long debauch, I generally find that this state is modified by two other circumstances. He is more or less drunk, on the one hand; he has more or less gastritis, on the other. His furred tongue, his tender epigastrium, the nausea (or even vomiting) occasionally noticed, are, doubtless, associated with a condition which I have verified, after death, in the gastric mucous membrane—a firm, white condensation of the cell-growth, and a deep congestion of the subjacent vessels, such, as for want of a better term, we may roughly call "inflammation."

Both of these circumstances prohibit the administration of alcohol and opium in their ordinary forms and doses. To what purpose, when a man is already raving drunk, should we give additional quantities of the poison which has made, and is keeping him so? What, again, will opium often do, save increase this drunkenness? Combined with alcohol, opium is, for most races and idiosyncrasies, a stimulant rather than a sedative. Indeed, even when taken alone, opium often acts as a stimulant upon the Malay, the Turk, the Hindoo—aye, and on many an Englishman quite unaccustomed to its use. And I am sure that, given in any but the most overpowering or dangerous doses, it oftener increases than lessens the ravings of the delirious patient; while it certainly so far obscures the symptoms, that after its sufficient (i. e., copious) administration, you must often remain in doubt whether the patient dozes because he is half poisoned or because he is half cured. Furthermore, as respects the gastric lesion, what, in the name of common sense, are large doses of alcohol to do? To increase inflammation; to add fuel to the fire; to constitute an additional source of the pain, fever, delirium, sleeplessness, which gastric irritation alone amply suffices to provoke? Thus much at any rate might be alleged, that their supposed benefits could hardly be deduced or explained by Rational Medicine, unless it were presumed that, in this instance, the general effects of alcohol counterpoised that aggravation of the local injuries which its introduction into the stomach would necessarily provoke. But to this generally beneficial effect we have already demurred; so that we need hardly point out that, granting it useful in this way, there could scarcely be a more clumsy, ineffectual and dangerous mode of administering it, than by pouring it in large quantities and a concentrated form, into an inflamed organ itself essential to life.

Much might, I think, be said for emetics and cold effusion in well-chosen cases of this kind. But in this instance neither of these two measures seems necessary. Two special attendants; a separate ward; a full dose (fifteen minims) of ipecacuan wine, with a little (seven minims) laudanum, and (ten minims) chloric ether, well diluted, every three or four hours; some three or four ounces of brandy, largely diluted, in the twenty-four hours; and mustard poultices to the epigastrium, are all that we need now order. A mutton chop, to be taken as soon as he wakes from his first sleep, completes the prescription. The action of ipecacuan, thus guarded and combined, I will not now dwell upon, further than to say that it seems to effect a two-fold benefit; to allay cerebral congestion and excitement on the one hand, and to provoke gastric and intestinal secretion on the other. [The patient becomes gradually calmer, and in twelve hours fell asleep. The next day he was quiet and rational. Under full diet and stout, with bark, he recovered so rapidly as to leave the hospital, cured, in five days.]—*Lancet.*

AN ADDRESS: DELIVERED TO THE GRADUATES OF THE LONG ISLAND COLLEGE HOSPITAL.—*By Austin Flint, M.D.* Brooklyn: 1860. Any discourse of Dr. Flint, upon whatever topic, is always scholarly, evincing that nice sense of the proprietors of *Belle-Lettreism*, which show him to be thoroughly conversant with literature beyond the strict limits of that of his own profession. The rules and spirit which should guide and animate the young practitioner in his endeavor for an honorable distinction in his profession, are very happily drawn and commended in the present discourse. The terms with which he designates the *rear* of the profession have a mild and agreeable spiciness. He entitles this division of the profession as *monumental physicians.* We may thank him for the truth he so neatly enforces in the following paragraph:

"In the medical profession, as in other walks of life, not a few cannot, or will not appreciate the great fact of progress; and, hence, the profession abounds in members who may be distinguished by the title of *monumental physicians.* They represent not the present, but the past! They are living monuments of former stages of the career of science. They do not reflect science as it is, but perpetuate it as it has been. Remaining in a fixed position from the time when they entered the profession, they represent different periods of the past. A few are the living representatives of medicine as it was fifty years ago; some carry us backward a score of years, and others are only removed a single decade. While the progress of knowledge and art is onward, they are stationary, occupying always the same spot, with eyes reverted—'not remembring Lot's wife!' Our monumental brethren are not infrequently among those who decry the present system of medical instruction; finding fault with the schools for not adopting a higher standard of attainment for graduation. This is not the time and place for discussing the responsibility of professors for the admission into the profession of imperfectly educated graduates. But it is not inappropriate, in the present connection, to say that the subject of medical education has reference not to medical students only, but to practitioners of medicine. The want of progressive studies after graduation is, to say the least, as crying an evil as defective preparation for practice. Much as our schools fall short of what they might be made to be, it would be of immense advantage to the profession if practitioners, old as well as young, resorted to them much oftener than they do. As it is, our intelligent students contribute in no small measure to the improvement of the profession by reporting what they see and hear, and thereby inciting and directing the inquiries of those who stand to them in the relation of private teachers. In fact, it is not too much to say that the students and graduates from our schools go forth as missionaries to convert the stationary practitioners to faith in the new revelations of truth which are constantly taking place in the progress of medical knowledge! Let me express the hope, gentlemen, that of those whom I now address, none will ever be ranked among the *monumental physicians.* Begin your professional career with the conviction that constant progress is the law of this as of other departments of knowledge not springing directly from Divine revelation; and with the determination always to be found among those who represent its actual condition."

The whole of this discourse is noticeable among those on similar topics for the absence of the *Academic strut*, which nauseates the philosophical appetite while overlooking them.

CAFFEINE IN OPIUM COMA.—THE SECOND CASE OF THE INJECTION OF CAFFEINE BY THE RECTUM, IN EXTREME NARCOTISM OF OPIUM.—*By Henry F. Campbell.*—In the May number of the *Southern Medical and Surgical Journal*, of the present year, we reported the particulars of a case of opium-coma, of a very grave character, in which *twenty grains of caffeine*, injected into the rectum, produced the most surprising and satisfactory results. At the close of that former paper we expressed the wish that some member of the profession would repeat the treatment applied by us in that case, and either confirm or disprove our confidence in the remedy. The various medical journals of the country have commented upon the paper, and have generally approved the rationality of the measure; but, as yet, we have not been gratified by observing the report of any second trial of caffeine under the circumstances, or any additional evidence in support of our favorable conviction in regard to the antidote. A case which occurred to us on the 10th of July instant, affords us the privilege of being able to report the second case of the application of caffeine for opium-coma. Although the following case was not attended by the same happy results as that reported in our May number, we think that the details of the phenomena, so far from weakening our confidence in the remedy will go far to confirm it.

July 10th, 1860, 3½ o'clock, P. M., called in haste to the U. S. Hotel, in this city, to visit a gentleman said to have been found in a dying condition in one of the rooms. The patient was Mr. Moses Pike, a Jew, aged about 28 years, of good constitution apparently, and well developed corporeally. On entering the room we found him in the following condition: he was entirely unconscious; face of a dark purple hue; hands and feet also purple from congestion; nails on fingers and toes of an indigo color. There were also patches of a venous congestion, presenting a darkened hue all over the surface. His respiration was fearfully slow when counted, *not quite four to the minute.* The attendants were slapping and shaking him each time between the inspirations to excite him to breathe. His respiration seemed greatly obstructed by the accumulation of mucus. Pulse very feeble, and about 100 per minute. The muscular system was completely relaxed, so that his head would fall about by its own weight, and his arms and legs obeyed only the influence of gravity.

Immediately on our arrival, a paper was found, on which the unfortunate man had recorded the fact that he had taken laudanum at 12 o'clock the night previous, with the intention of self-destruction. Two empty vials, labelled luudanum, one of two ounce capacity, the other of one ounce, was found on the table. One of these vials had the neck knocked off, apparently with the view of opening it hastily, and some of the laudanum had escaped so as to leave a stain upon the label. It is probable, therefore, that the entire three ounce had not been taken. Once or twice during the morning, the servant stated that he had approached and tried the door, with the view of entering, but had desisted when he heard the occupant snoring deeply, as he did not wish to disturb him. Somewhat after 3 o'clock, P. M., the servant became alarmed and looked into the room through the transom light from the chair, and observing his condition called for assistance.

From the above circumstances, as well as from the written statement of the patient, it was highly probable that near three ounces of laudanum had been in his system nearly fifteen hours—that so large an amount had not produced death in so long a time, is truly unaccountable.

The condition of the patient, the necessity of constantly provoking respiration, and also the little probability that any laudanum yet remained in the stomach, caused us to abandon the idea of using the stomach pump. Emetics, of course, were out of the question, and we at once resorted to the application of ice to the scalp, and pouring ice water, from a distance, upon the head, while we sent for a drachm of caffeine, and a small syringe. As soon as these arrived, we poured out in the palm of the hand what we supposed to be about twenty grains of caffeine, dissolved it in two ounces of cold water, and introduced it into the rectum by means of a syringe. The syringe being small three applications were made at short intervals. The whole of the alkaloid was not dissolved. By an estimate made subsequently, calculating what had been lost, the patient had taken near *twenty-five grains of caffeine* in the three applications.

The caffeine was administered at twenty minutes before four o'clock, at which time, as we have said, the respiration of the patient was *scarcely four to the minute*, and constant efforts were necessary, in the way of slapping and shaking him to provoke him to inspire. At fifteen minutes after four (thirty-five minutes after the injection) his respiration was found to be effected with less effort and more regularly—and, on counting it by the watch it numbered eight to the minute. The skin, even now, began to present less of the cerulean tint. In one hour after, the respiration had risen to twelve, and shortly rose to sixteen to the minute, when the skin was nearly of the natural hue, though the nails on both hands and feet remained still of a purplish cast.

Slight spasmodic movements in the fingers were now observed, and also some occasional subsultus in the muscles of the forearm—the under lip, which before was hanging, now became elevated and slightly compressed against the teeth. When the hand of the patient was held, and an attempt made to extend the arm at the elbow, decided muscular resistance was observed. The lid of the left eye was also observed to be raised and let down rapidly once or twice.

The pulse had now become full and somewhat resisting, and the action of the heart, as observed at the chest, tumultuous. On being raised, the patient once made a noise slightly resembling a groan, but from the beginning to the end he did not once manifest the least consciousness.

For a short time after the improvement in respiration began, the mucous rale seemed somewhat to diminish, and his breathing, were it not for a certain jerking, resembled very nearly a man in deep, healthy sleep. The rale now, however (half-past seven o'clock), became more and more obstructive, the gurgling reaching up into the throat and threatening momentarily to strangle the patient. It was now plain that he could not survive, and on turning him upon the right side a bloody mucus bubbled out of the nostrils. The number of the respirations was, at this time, twenty to the minute when counted by the watch. The entire surface of the body was intensely hot, and remained so to the time of the patient's death, which took place at fifteen minutes before nine o'clock, P. M. He seemed to die from the accumulation of the bloody mucus in the bronchial tubes and larynx. During the whole time, from the first moment of our seeing him to the time of his death the application of ice was made constantly to the head of the patient, and also mustard plasters were applied to the spine and to the extremities.

A superficial glance at the foregoing case might, perhaps, impress the reader with the conviction that the confidence which we expressed in our former report, in caffeine as an antidote in opium-coma, was somewhat hasty and misplaced. A more deliberate consideration, however, will remove such an impression. When we reflect on the amount of the opium taken, the length of time during which the patient had been left to its toxic influence, and the destructive ravages which had been made during that time, we certainly, on the other hand, must feel great surprise at the amount of modification the caffeine was seen to produce under such disadvantageous circumstances. The respiration, in a space of time less than one hour, was raised from four to sixteen in the minute. The color of the skin, under its influence, was changed from an almost indigo hue, to that of the natural complexion, and the muscular relaxation was replaced by a fair degree of tonicity accompanied by occasional twitchings. The mode of death, too, was not such as is seen in the demise from the unmodified effects of opium, when the respiration becomes gradually slower till it ceases altogether, but at the time of our patient's death his respiration numbered twenty per minute, and he died apparently *drowned* by the accumulation of the viscid mucus in the air passages, doubtless the result of the long enduring pulmonary congestion occurring previous to the administration of the caffeine.

In conclusion, we feel confident in saying that we feel greatly encouraged by the developments of this second case, and shall use the remedy hereafter, with even more confidence than before. We 'again express the hope that some of our professional brethren will add their published testimony to ours so as to establish the true amount of value that should be attached to caffeine as an antidote in opium-coma.

We intend shortly reporting the results of experiments with the two drugs, opium and caffeine, as made by us, on the lower animals.—*Southern Medical and Surgical Journal.*

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CLINICAL REPORT OF CASES

Observed at the N. O. Charity Hospital during the Session of 1859–60;

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My report of the cases of pneumonia observed during the session of 1859–60, has occupied so much space that I must forego the consideration of other diseases which I had intended to have studied, by means of my recorded cases, before commencing the labors of another session. I had intended to have analyzed the cases of cirrhossis and degenerative disease of the kidney which were observed at the Charity Hospital during the last and the preceding sessions. This I must defer till a future time, when I shall probably have accumulated a larger number of examples of these affections. In preparing the last of my clinical reports prior to the session of 1860–61, I shall select from my hospital records several cases of interest, and consider them briefly, with reference mainly to certain practical points.

Case I.—*General Paralysis—Marked Improvement.—*

John Sullivan, aged about 30, Irishman, laborer, was admitted October 29, 1859.

He noticed diminished power of the muscles of the extremities about ten weeks before his admission. He noticed this first in the right upper extremity, next in the left, and shortly afterward in both lower extremities. He had been accustomed to drink over a pint of whisky daily for many years, and occasionally he drank to intoxication. He had also been accustomed to chew tobacco almost continually, and often smoking in addition. For months prior to his present illness, he was exposed to wet in working—his lower limbs were frequently in water during the whole day. He had formerly intermittent fever, but a relapse had not occurred for several years.

The paralysis progressively increased, and five weeks before his admission he was obliged to quit work. After this he was soon confined to the bed, from inability to get up without assistance.

On his admission his condition was as follows: The paralysis of both upper extremities was nearly complete. He was able only to move the fingers, and to produce a slight jerking movement of the limbs. He could not raise them from the bed. The lower extremities he was able to bend freely, and he could raise the feet from the bed. The left upper and lower limbs were somewhat more paralyzed than the right. There appeared to be no deficiency of the sensibility of any of the limbs. The respiration was exclusively costal. The costal movements were greater than in health, and somewhat more frequent, numbering twenty-eight. There seemed to be no diaphragmatic movement. The abdomen was depressed in the act of inspiration. It was extremely difficult for him to speak above a whisper. By a strong effort he was enabled to speak in a loud voice, which was somewhat hoarse. The difficulty appeared to consist not so much in paralysis of the nerve of phonation as in the want of sufficient power of the respiratory muscles.

The appetite was good. The bowels were not disordered. The pulse was normal. The aspect of the patient was bright, and there was no lack of intelligence. He replied to questions more intelligently than the majority of patients of the same class.

The heart-sounds were pure. The percussion-sound over the chest was clear, and the vesicular murmur tolerably well evolved. He urinated without difficulty, but there had existed some difficulty prior to his admission.

He had no pains. He slept badly, but could assign no cause for vigilance except his lying constantly in bed.

There was no paralysis of the facial muscles. The tongue was readily protruded, and in a right line.

He had had no medical treatment, but he had taken calomel of his own accord, which produced salivation. This was sometime previous to his admission.

He had received no injury. There was no tenderness over the spine nor curviture.

Treatment.—Directions were given to have him at once taken out of bed, and to cause him to sit up as much of the day as his strength would permit. He was instructed to exert himself to move the paralyzed limbs as much as possible. The citrate of iron and quinia was prescribed.

Nov. 1. The patient had improved, as shown by increased power of moving the upper limbs, and ability to speak with a loud voice. He had sat up from four to six hours daily, and had exerted himself perseveringly in moving the limbs. The treatment was continued.

Nov. 9. Improvement was progressive, and the treatment was continued.

Nov. 18. The improvement was now marked. The patient was able to walk without support. The aspect denoted great improvement. The treatment was continued.

Dec. 3. The patient was able to walk about freely. He could move the fingers freely, but was unable to stir the arm or wrist. The treatment was continued.

Dec. 12. The patient had of late exercised the upper limbs by grasping some large rings attached to the bedposts. The diaphragm still appeared to be motionless. The patient was unable to sneeze ; on filling the nostrils with snuff, he felt the desire to sneeze, without the ability.

Dec. 31. The improvement continued. He was able to exert considerable force in pressing with his hands, but was unable to flex the elbow. He employed most of his time in exercising his limbs.

Treatment.—The citrate of iron and quinia was discontinued, and Huxham's tincture of bark substituted.

Jan. 20, 1860. The improvement continued. He was able to move the arm a little. The treatment was continued.

Feb. 22. The improvement was still progressive, and the treatment the same.

When my service ended, in the later part of March, the condition of this patient was still further improved. He had recovered the free use of his lower limbs and of the voice. The power of moving the upper limbs was still limited, but he had steadily improved in this respect. His general health was good, and he had gained in weight.

Remarks.—This case resembles closely a case which was under observation in the sessions of 1858–9, and which I reported for the *New Orleans Hospital Gazette.* It is difficult to determine the pathological condition of the spinal cord in such cases. It may involve mechanical pressure from the products of inflammation upon morbid growths, and it may consist in softening, or other lesions of the cord itself. But there is reason to believe that the morbid condition may be merely functional. Whatever the condition may be, so long as there is no evidence of inflammatory action, or of caries of the spine, the object of the treatment should be the recovery of the lost power over the paralyzed muscles, by means of systematic, persevering, voluntary efforts. To excite the muscles by electricity does not comprehend the object of treatment. It is not the recovery of the capacity of the muscles to control, which is aimed at, for this, in so short a duration of the paralysis, was not lost, but it is the recovery of the power to produce and direct muscular contractions by the will. If the morbid condition of the cord be merely functional, recovery may be expected to be complete. If the paralysis have been produced by morbid products or organic lesions, a considerable amount of volitionary control which has been lost, may be recovered. In either case, it is chiefly by means of persevering exertions of the will concentrated on the paralyzed muscles, that the recovery, entirely or in part, is to be effected.

This case illustrates the success of those exertions. Had the patient been allowed to remain in bed, and not been encouraged to strive by daily efforts to acquire control over the paralyzed muscles, the paralysis would have continued, the functions of the body generally would have languished, the mental faculties would have become impaired, and, at length, if life continued for several months, the nervous and muscular fibrils would have undergone fatty degeneration, and recovery rendered thereby impossible.

The tonic remedies given in this case had no special reference to the paralysis, but were given in order to strengthen the system, and with regard to a moral effect.

Case II.—*Laryngitis—Tracheotomy.* — Jacob Diebert, aged 15, was admitted February 16, 1860. He stated that he had been ill for nine days, and that he had had fever, accompanied by a rash. Difficulty of breathing began three days before his admission.

This difficulty was considerable on the evening when he was admitted. It was evidently from laryngeal obstruction. The obstruction affected alike the inspiration and expiration. The parts above the sternal notch were depressed with each inspiration. The respirations were but little, if at all, accelerated.

On examination of the fauces, there was not much swelling, but redness, without exudation.

On examination of the chest, good vesicular resonance on percussion existed every where. Sibilant râles were diffused over the chest, but the vesicular murmur was appreciable.

The pulse was much accelerated, tolerably developed, and vibratory.

He had been vesicated on the neck, in front and behind, before his admission.

The treatment directed was calomel and Dover's powder, of each a scruple, divided into six papers, one to be given every four hours.

Later in the evening my colleague, Prof. Choppin, saw the patient with me. The labor of breathing had somewhat increased. A slight shade of lividity was perceptible on the lips. The other symptoms remained the same. Prof. C. did not think that the symptoms rendered the immediate performance of tracheotomy advisable. Persons were detailed to sit up with the patient during the night, and if the dyspnœa became more urgent, Prof. C. was to be notified.

The next day I found the patient more comfortable. Some relief of the dyspnœa took place about midnight. There was, however, considerable labor in breathing. The neck above the sternum was still deeply depressed with the act of inspiration. The lower part of the chest was also contracted with the same act, and the epigastrium was drawn inward. The respirations were 24. The pulse was 160. The nostrils dilated with each inspiration. The lips were slightly livid. The vesicular murmur was perceived over the chest, but it was feeble. Moist râles accompanied the inspiration and expiration, especially the latter. He expectorated muco-purulent matter in abundance, and with ease. On applying the stethoscope over the larynx, the inspiratory sound was rough and low; the expiratory sound high, and accompanied by shrill, squeaking râles.

At 10, A. M., the breathing had become more labored and the lividity of the prolabia more marked. The operation of tracheotomy was performed by Prof. Choppin, in the hospital amphitheatre.

The immediate effect of the operation upon the respiratory movements was remarkable. Prior to the opening of the trachea the lower part of the chest and the epigastrium were notably depressed during the inspiration, as well as the neck above the sternum. So soon as the air was freely admitted through the aperture in the trachea, the chest was largely expanded, the lower portion especially. The immediate relief was complete, and the contrast with the distress when the patient was brought into the amphitheatre, was very striking.

At 4, P. M., the breathing was tranquil. When I approached the bed the patient seized my hand with an expression of gratitude for his relief. The pulse was 140, having fallen 20 beats since the operation: the aspect was free from suffering.

The treatment was, milk punch and nutriment as freely as practicable, and the powders of calomel and Dover's powder were continued.

Feb. 18. The patient had passed a comfortable night, sleeping much of the time. Cough was occasionally troublesome, and considerable muco-purulent matter was expectorated through the tube. He had diarrhœa. The respirations were 28 and the pulse 120. A vesicular murmur was well marked over the chest, and the moist sides were not heard. The calomel and Dover's powder were discontinued, and the syrup of morphia prescribed, with essence of beef and wine.

Feb. 19. He continued comfortable. The pulse was 100 and the respirations 20. The treatment was continued.

Feb. 20. Comfortable; pulse 90, and respirations 16. The breath was offensive.

Feb. 22. The patient continued comfortable; the diarrhœa had ceased; pulse, 88; respirations, 20. On closing the tube he was able to breathe freely through the mouth. He was only able to speak in a husky whisper.

Feb. 26. The improvement had continued, and on the 25th the tubes were removed. The aperture in the trachea remained open, and the patient breathed through it without difficulty. The wound in the neck had become enlarged by ulceration. The sides were approximated by adhesive strips. When the aperture was closed breathing took place without labor through the natural passages.

The appetite was good, and food taken without difficulty. The patient desired to sit up.

No medicine had been given since the preceding date. Good diet and a little wine were directed.

Feb. 29 The patient breathed perfectly well through the natural passages, but the aperture into the larynx was still open. He could only speak in a whisper when the aperture was closed. The cough and expectoration were slight. He was up and dressed.

Wine and good diet constituted the treatment.

March 1. The patient walked down to the amphitheatre. The aperture into the trachea was still open.

March 4. The patient was not so well. He had been up all day and out of doors. The wound was rapidly closing. He complained of cough, and the respiration became labored. The expectoration which had almost ceased became abundant.

March 5. The labor of breathing became so great that the opening into the trachea was enlarged, and the tubes again inserted.

March 10. The cough, expectoration, and febrile movement had much diminished, and the breathing through the tube was easy.

The treatment consisted of a little syrup of morphia and good diet.

March 26. The patient was up daily and about the ward. He had little cough. The appetite was good, and his general appearance healthful. He was, however, unable to breathe through the larynx. The tubes occasioned very little inconvenience.

This was the general condition when my services ended. Mr. Profilet, resident student in the hospital, in a letter dated July 9th, stated that the tubes had not been removed from the trachea, but the general health of the patient was excellent.

Remarks.—The patient's life in this case was probably saved by the timely performance of tracheotomy. The obstruction was so great, and it had increased so much within a few hours, that had the operation not been performed a fatal result within a few hours might have been expected. But even admitting that the patient might have struggled through the disease, the immediate and complete relief of intense suffering, more than compensated for the pain, and any evils incident to the operation. In determining when to operate, a rule was followed which I believe should be a guide in similar cases, viz: to operate so soon as the *permanent* obstruction is sufficient to occasion well marked lividity of the prolabia. By permanent obstruction I mean that due to the swelling or exudation due to the inflammation, or distinguished from spasm of the laryngeal muscles. The obstruction due to the latter is transient, occurring in paroxysms. We are to judge of the amount of permanent obstruction by the amount of difficulty when the patient is free from paroxysms or exacerbations of dyspnœa.

Lividity is a much more reliable criterion of the degree of danger than the expressions or manifestations of suffering which the patient presents. The same amount of actual distress will be differently borne by different patients, and the actual amount of distress differs in different cases, in which the obstruction may be the same. So far from the suffering being increased, as the blood becomes imperfectly oxygenated, it may be lessened. Auscultation affords an important means of ascertaining the condition as regards danger. So long as the vesicular murmur is tolerably evolved the immediate danger from the permanent obstruction is not imminent. Physical exploration also is important in such cases, in order to exclude pulmonary affections, or to determine the fact of their coëxistence.

This case illustrates the fact that the tracheal tubes may be worn without much inconvenience for an indefinite period. When I last heard of the condition of the patient he had worn the tubes for nearly five months, and his general health was excellent. A case has been recently reported by Professor Van Buren of the University of New York, in which the operation was performed, not to relieve obstruction, but simply to secure perfect quietude of the laryngeal muscles, the patient being affected with syphalitic laryngitis. The apparent benefit justifies the performance of the operation for that purpose.*

CASES III AND IV.—*Œdema Glottidis.*—Two cases of œdema of the glottis were received into my hands during the session of 1859–60. In both cases tracheotomy was performed, and I regret to report that both cases terminated fatally.

Case 3.—G. W. Burke, aged 28, admitted in the evening of Nov. 21st. The difficulty of breathing was then marked, but not urgent. The difficulty increased during the night, and when I saw the patient for the first time on the morning of the 22d it was extremely great. The face was deeply congested and livid. The pulse was 120. The skin was warm. The patient dosed much of the time, but at times was aroused, complaining of a sense of suffocation and manifesting great distress.

The difficulty was evidently in the inspiration. The inspiratory act appeared to be arrested. The expiration was free and accompanied by a laryngeal or pharyngeal snoring râle.

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*Vide Am. Med. Times. Vol 1, No. 1. July, 1860.

On examination of the throat the uvula and surrounding parts were seen to be greatly swelled. No exudation was observed. On percussion the chest was everywhere resonant. On auscultation loud sonorous râles, with the expiration were alone heard.

The operation of tracheotomy was performed by my friend Dr. Smyth, assistant surgeon of the hospital. The operation was somewhat prolonged, and some embarrassment occassioned by hemorrhage. After the insertion of the tubes the patient at once experienced relief. The color of the face improved. The pulse, however, increased in frequency, and in half an hour after the operation was 144. The respirations were 32. The inner tube at short intervals became obstructed, and required to be frequently removed.

Death took place a few hours after the operation.

On examination after death considerable swelling was found above the vocal chords on both sides, but more on one side than the other. The mucous membrane was pale and wrinkled, as if a portion of the submucous infiltration had disappeared. The epiglottis was swelled and pale. The lungs were everywhere crepitant and elastic.

Case 4.—The patient (name not noted) was admitted Feb. 28. I saw him at 5, P. M. He was then suffering much from difficulty of breathing. The difficulty was evidently due to laryngeal obstruction, and the obstruction was limited to the inspiration. The inspiratory act was slow, labored, and accompanied by a loud chirping sound. The expiratory act was entirely unobstructed. *The voice was intact and not even hoarse.* This showed that the obstruction was seated above the vocal chords, and that laryngitis did not exist. The fauces presented no appearance of inflammation.

On physical exploration no evidence was found of any pulmonary complication. The resonance on percussion was everywhere clear, and the respiratory murmur was appreciable, although feeble and vesicular. The chirping sound produced in the larynx had progressed over the chest.

The pulse was not accelerated. The patient kept the sitting posture and complained of the difficulty of breathing. The epigastrium and the parts above the sternum were depressed with inspiration. There was some lividity of the face and lips. After the lapse of an hour it was resolved to try Dr. Buck's operation of scarrifying the glottis. A straight probe pointed knife was selected for this purpose. This was introduced several times, and free incisions made. Considerable hæmorrhage ensued. The patient appeared to be relieved, and was left in charge of a medical friend. In the course of an hour it was apparent not only that the scarifications had not been effectual, but that the difficulty was increasing with great rapidity. My colleague Prof. Choppin, who had kindly consented to hold himself in readiness to perform tracheotomy, was called, and the operation was performed. At this time, however, the patient was gasping for breath, and he breathed but a few times after the trachea was opened.

Considerable frothy sanguinolent liquid escaped through the aperture into the trachea directly after death, and it continued to flow for some time.

On post mortem examination the mucous membrane at the top of the glottis was distended with serous infiltration, so as to form on each side a bladder-like tumor. There was no appearance of inflammation either in the pharynx or larynx. There was no evidence of obstruction of the vocal chords; the obstruction was seated exclusively above the chords. The lungs were healthy.

Remarks.—The diagnostic marks of œdema glottidis are well illustrated by the histories of these two cases, viz: an obstruction seated at the larynx, and affecting the inspiration, the expiration being unobstructed. Physical exploration showed that no important pulmonary affection existed, and the autopsies confirmed this fact. In the second case, the unchanged character of the voice showed that laryngitis did not exist. This is an important diagnostic point.

The unfortunate termination in both cases was due to tracheotomy not having been performed sufficiently early. In the first case it was performed as soon as the case came under my observation, but this was too late. In the second place it was delayed in consequence of resorting to scarifications, which in this instance were ineffectual.

Scarifications of the glottis and epiglottis, as a substitute for tracheotomy in œdema-glottidis, were preferred a few years ago, by Dr. Gurdon Buck, and their success illustrated by general cases.* They have quite recently been advocated by a writer in the London *Lancet*, without reference to Dr. Buck's contributions on the subject. It had never occurred to me to witness their application in a case of œdema of the glottis; but ever since the publication of Dr. Buck's paper, I had regarded this method of treatment as an important improvement. I do not claim, in behalf of the case now reported, that it disproves the propriety of the method. The scarifications were not effectually made. But the case has suggested considerations which would lead me to prefer, under similar circumstances, the operation of tracheotomy.

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* Œdematous Laryngitis successfully treated by Scarifications of the Glottis and Epiglottis, by Gurdon Buck, M. D. Trans. Am. Med. Association, vol. i, p. 135.

The scarifications are not so practicable as they may appear to be beforehand. In a person struggling for breath—the larynx in constant motion, and efforts at vomiting excited by the presence of the finger in the throat—it is difficult to guide the knife and give the incisions the proper directions. Judging from this case, tracheotomy is an easier operation.

The hæmorrhage which is liable to occur is a serious evil. The blood in this case, accumulating in the air passages, contributed to the dyspnœa, and probably was in part the occasion of the rapid increase of the difficulty of breathing, although the immediate relief was such that it was hoped the scarifications had proved effectual. This is a point to be considered.

Another objection to scarifications which suggests itself, is the liability of cutting the vocal chords and impairing permanently the voice in cases in which this method is successfully employed.

On the whole, expressing the opinion with due diffidence, in view of the fact that the case now reported is the only one in which scarifications have been attempted under my own observation, I am led to think that tracheotomy is preferable, as more easily performed, giving no more pain to the patient, being at least as innocuous, and vastly more certain.

Case V.—*Dilatation of the Aörta—Insufficiency of the Aörtic Valves—Sudden Death.*—Mary Smith, aged 50, married, was admitted early in November. This patient was assigned to a ward under the charge of Dr. Jourdan, to whom I am indebted for the opportunity of observing the case. The patient stated that she was accustomed to do washing, and had been able to work uninterruptedly up to about six weeks before her admission. During the past six weeks she had had difficulty of breathing, having been obliged to sit up most of the night, or to lie with the head greatly elevated. This difficulty continued. She had slight cough, with small expectoration. She had had some œdema of the feet. The difficulty of breathing was the chief symptom of which she made complaint. Slight exertion caused her to pant for breath. The appetite and digestion were good. The bowels were constipated. The pulse of the right wrist was 90, and well developed; of the left wrist it was scarcely appreciable. The difficulty of breathing was not from mechanical obstruction. The pulse was notably quick and collapsing.

Physical Signs.—The right carotid pulsated strongly, both to the eye and touch. No pulsation of the left carotid was seen, and it was extremely feeble to the touch. The subclavian on the right side pulsated strongly, and on the left side a pulsation was scarcely felt. A strong pulsation was seen above the sternal notch, and a round, smooth, pulsating body was here distinctly felt. This body was situated more to the right than to the left of the notch, within the right sterno-clavicular junction. A feeble, double murmur was heard through the stethoscope placed in this situation, together with one of the heart-sounds only, viz: the systolic, which conveyed the idea of a blow, and was accompanied by tinnitus.

Dullness on percussion was distinct over the sternum at its upper part, extending two and a half inches to the left of the median line, and three-fourths of an inch to the right of this line. The lateral limits of this dullness were easily defined by percussion, and they were confirmed by auscultation. The lower boundary of the dullness was not separable from that due to the heart.

A double murmur was heard at the base of the heart, as well as over the pulsating body. The diastolic murmur was heard to the left of the sternum, extending quite to the xiphoid cartilage.

The first sound of the heart was heard below the false ribs, near the epigastrium, and not elsewhere. The second sound was nowhere discernable.

The apex-beat was felt to the left of the xiphoid cartilage.

No thrill was felt over the pulsatory body behind the sternum, nor elsewhere.

Nov. 23. The patient died suddenly. The mode of dying was not ascertained.

The heart and aörta were removed after death, and kindly placed at my disposal.

The heart was greatly enlarged—truly a *cor bovinum*. The enlargement was due mainly to hypertrophy, with dilatation of the left ventricle, the dilatation predominating. The aörta was dilated from its origin, and to the arch the dilatation was great. The pulsating body felt during life was evidently the commencement of the arch. The interior of the vessel was roughened with atheromatous patches, and in some portions studded with calcareous plates. There was no thinning of the artery at any point.

The segments of the aörtic valve were here healthy, but, owing to the greatly dilated orifice, they were evidently insufficient. The mitral valve was healthy.

The left subclavian artery was evidently occluded at its junction with the aörta by a membranous-like and apparently organized formation. The artery was pervious quite to the point of junction. The left carotid was obstructed at its origin from the aörta by a similar formation. The opening admitted only the end of a small blow-pipe, and the relation of this small aperture to the direction of the carotid was such that the current of blood must have been directed against the wall of the artery.

The muscular structure of the heart presented a natural appearance.

Remarks.—The physical signs in general, and certain symptoms, in this case, are rendered intelligible by the appearances after death. The aörtic regurgitant murmur and the absence of the second sound, are explained by the insufficiency and probable non-expansion of the aörtic valves, owing to the dilatation and diminished elasticity of the aörta. Why the pulmonic second sound should not have been observed, is not apparent. It is possible that attention was not directed to this point with sufficient care in the physical exploration. The absence of the pulse in the left mitral, subclavian and carotid arteries was sufficiently explained.

The sudden death was probably due to paralysis of the heart, from over-distension of the left ventricle. This seems to be the most rational explanation of the occurrence of sudden death in diseases of the heart, which involve aörtic lesions with insufficiency of the aörtic valve. Different observers have called attention to the more frequent occurrence of sudden death in connection with aörtic than with mitral lesions. In analyzing my cases with reference to the preparation of my work on the diseases of the heart, this point of inquiry was inadvertantly omitted. My attention has been called to this omission by the able reviewers of the work in the Dublin Quarterly and American Journal of Medical Sciences, to whom I am indebted for other valuable criticisms.

CASE VI.—*Aörtic Pulsation—Simulating Aneurism.*—I was invited by my friend, Dr. Smyth, assistant surgeon of the hospital, to see a male patient in his ward, who presented a very marked pulsation of the abdominal aörta. The pulsation was quite strong, and was limited to a small space just below the epigastrium. The shock, when Cammann's instrument was applied, was painful to the ear. A single sound only was heard, and on deep pressure with the stethoscope, a faint soft bellows murmur. A tremor could be felt.

The patient was exhausted by some disease not determined, and died in a day or two after my examination.

On examination after death, there was no aneurismal dilatation, nor any disease of the artery. The caliac and renal arteries were given off unusually near each other. I have not noted other results of the *post mortem* examination.

Remarks.—I report this as a case in which the extremely strong pulsation of the abdominal aörta within a circumscribed space, accompanied by a murmur, naturally gave rise to the question whether an aneurism existed. The case shows that these points are inadequate to the diagnosis of aneurism, when a tumor is not discoverable. The occurrence of the strong pulsation of the abdominal aörta which is sometimes observed, irrespective of aneurism, is not susceptible of a ready explanation, and I shall waive the consideration of the subject in the present connection.

CASE VII.—*Typhoid Fever—Relapse and second career of the disease, with the eruption repeated.*—James A. Martha, aged 19, was admitted January 8th.

He stated that he had been ill about a week, and had kept the bed for four days before his admission. The symptoms before his admission were debility, anorexia, with febrile movement. No diarrhœa nor epistaxis.

On his admission the symptoms were as follows: Moderate febrile movement; meteorism, tenderness and gurgling in the iliac regions; no eruption; no diarrhœa; dullness of mind, and disposition to sopor; no manifestations of delirium, but he stated that he was occasionally confused and forgot where he was; marked capillary congestion of the face, body and limbs.

On the fifth day in hospital a few rose spots were apparent over the chest and abdomen. On the seventh day the rose spots had disappeared. The febrile movement had disappeared; the mind had become clear, and the patient was in fact convalescent. There was neither delirium nor diarrhœa during the career of the fever. The treatment consisted of the sulphate of morphia, half a grain morning and evening, a little wine, and nutritious diet.

On the eleventh day after admission the patient felt well enough to leave the hospital, and was discharged. The duration of the disease, dating from the time of taking to the bed to the time when the symptoms denoted convalescence, was nine days.

Thirteen days after his discharge, this patient was reädmitted. He stated that he went to work shortly after his discharge, and continued at work for several days. But for the previous ten days he had not felt well. On his reädmission he was obliged to take to the bed; he had diarrhœa, with moderate febrile movement, marked capillary congestion of the whole surface of the body, tenderness and gurgling in the iliac regions, etc. On the sixth day after his reädmission, twelve rose spots were counted on the chest and abdomen. He lay most of the time in a dosing state, but was easily aroused. The countenance was characteristic. Slight epistaxis had occurred. The diarrhœa was soon relieved. No manifestations of delirium occurred, and on the tenth day of his second stay in hospital he was again convalescent. A few rose spots, however, were still visible.

On the sixteenth day he was again discharged. The treatment during the second career of the disease consisted of the sulphate of morphia, wine, and nutritious diet. At the time of convalescence, the sulphate of quinia was prescribed.

Remarks.—A true relapse of typhoid fever, with a repetition of the eruption, is, so far as my experience goes, extremely infrequent. I can recall but a single example in addition to that just reported. The other case referred to came under my observation in the Louisville Marine Hospital, in the winter of 1855–6. A brief account of this case may be of interest in this connection.

CASE VIII.—Patrick Cunningham, aged 19, was admitted December 16, 1855.

He stated that he had had chills and diarrhœa, but he had not taken to the bed prior to entering the hospital. His uncle, who brought him to the hospital, stated that he came to his house the night before, without any pantaloons on, and seemed to be out of his mind. His mental state on his admission was such as to preclude attempts to obtain the details of the previous history.

Delirium was manifested, after his admission, by incoherent talking, and frequent attempts to get out of bed. The face presented marked capillary congestion, and, in a lesser degree, also, the body and limbs. Diarrhœa was moderate ; the abdomen was not distended, but tenderness in both iliac regions was marked. Gurgling was observed. The abdomen, chest and back were covered thickly with the rose eruption.

On the eighth day after his admission, all the symptoms denoted improvement, and he might almost be called convalescent. I was absent from town for five days, and on my return he was distinctly convalescent. The diarrhœa had ceased; the mind was clear; the eruption had disappeared, and there was no febrile movement.

The treatment consisted of brandy, from half an ounce to an ounce every four hours, small doses of the sulphate of morphia, and sustaining diet.

Convalescence progressed, and the patient was shortly dressed and about the ward.

Jan. 13. The patient, who for several days had complained of feeling weak, again took to the bed. Diarrhœa had occurred the day before, and on the same day he had chilly sensations. Febrile movement was moderate. Capillary congestion of the surface became marked, with redness of the conjunctiva. On the fifth day after again taking to the bed, the abdomen and chest presented an abundant eruption of rose spots, having all the characters of the typhoid eruption. There were no manifestations of delirium.

Thirteen days after taking to bed he was again convalescent. The febrile movement and diarrhœa had ceased, and the eruption was nearly gone. Convalescence progressed, and the patient was discharged, quite well, February 3, having been in hospital forty-nine days.

Remarks.—It will be remarked that in both cases the first career of the fever was unusually short, being in the first case only nine days, and in the second case not more than two or three days longer. It would seem as if the first career was insufficient to exhaust the morbid effects of the special cause, or to render the system insusceptible to the morbid action of the fever-poison. These are the speculative ideas which the cases suggest, but I have no intention of discussing the subject. I report the cases simply to illustrate the fact that in some rare instances a recurrence of typhoid fever takes place shortly after convalescence from the first attack.

[TB BE CONTINUED.]

WOUND INFLICTED BY A STING-RAY:

MORTIFICATION—AMPUTATION—RESULT.—By E. R. MORDECAI, of Mobile, Alabama.

John ——, an Italian fisherman of Mobile Bay, aged 26, of temperate habits, was wounded by a sting-ray. The barb of the fish entered the lower third of the leg, between the bones.

Forty-eight hours after the accident the patient had a dry brownish tongue, labored respiration, a cold clammy skin—in a word, the usual concomitants of depressed vital power. I thought he would die at once. But, after a desperate struggle, his system rallied under the use of powerful stimulants, a generous diet, and medicine directed to the restoration of the secretions.

As for the wound, from first to last, it looked dark and foreboding—with rugged edges, and discharging a brownish serous fluid. The surrounding skin was raised by collections of this discolored serum. While here and there along the leg might be seen isolated patches of elevated epidermis, presenting the same ill-omened phlyctenoid aspect.

On the morning of the 10th day he complained of loss of sensation in the leg. The dressings were removed, and mortification stared me in the face. It had set in during the night—was complete for the lower third, and inevitable for the entire leg.

Where nature would establish the line of demarkation was not apparent. To wait for it was out of the question.

It was determined in consultation with Drs. Herndon and Redwood that amputation of the thigh offered the only, though doubtful, chance of life.

Chloroform was given—little blood was lost—and the operation lasted but a few moments. As I grasped the saw to remove the limb, I observed that his eyes were glazed and set. Before the stump was dressed my patient was a corpse. Whether this sad result was due directly to the chloroform, or to the nervous shock occasioned by an operation on an enfeebled body, I know not.

The case is recorded to mark the danger of a somewhat uncommon injury.

A COURSE OF PRACTICAL LECTURES

ON URINE, URINARY DEPOSITS, AND ON THE RELATIONS OF MORBID URINE TO CONSTITUTIONAL DISEASE;

BY I. L. CRAWCOUR, M. D.,
Professor of Chemistry and Medical Jurisprudence, New Orleans School of Medicine.

LECTURE I.—INTRODUCTORY.

GENTLEMEN: It will be my object in the present course of lectures, to direct your attention to the varying appearances presented by the urine, and to show you how, in connection with these changes, we may obtain accurate and reliable information respecting the processes going on in the body, in its healthy as well as in its diseased condition. It is an error to suppose that a disordered condition of the urine is a disease *per se*, or that the urinary organs are necessarily involved in all cases where the urinary secretion varies from its normal standard, although conversely no affection of the urinary passages can occur without leaving some mark of recognition in the fluid which emerges from them. The urine is a highly complex fluid, consisting of water holding solid substances in solution, these solids being derived from the destruction, both vital and chemical, of the organs of the body itself, and frequently of food which has been imperfectly assimilated by the economy. The urine, therefore, containing the effete and worn-out tissues of the body, is excrementitious, and the retention of any of its constituents exerts a pernicious influence on the organism; it differs from the alvine evacuation, in the fact that in it, oxidation is carried to its highest point, and all its constituents must be, or have been in the fluid form. Considered with regard to its value in practical medicine, we may regard the urine, even when it does not contain substances foreign to it, as an index of the changes constantly going on in the body, and its examination will frequently lead to the detection of unsuspected and unrecognized constitutional disease.

I have already told you that the urine is a highly complex fluid, and we can better understand this by referring to the following list of substances which are usually present in healthy urine. For the sake of convenience, we may divide them into three classes, viz: volatile constituents, organic constituents, and inorganic constituents. The volatile constituents are water, carbonic acid, certain organic substances to which the urine owes its odor, ammonia and its salts. The organic substances are urea, uric acid, creatine, creatinine, sarcosine, hippuric acid, animal extractive, mucus, lactic acid and lactates. The inorganic constituents are the sulphates of soda and potash, the chloride of sodium, the phosphate of soda, phosphate of ammonia, phosphate of magnesia, chloride of ammonium, phosphate of lime and silica.

On reviewing these constituents, we shall find that the inorganic portion contains all the salts which are found in the blood, muscles, nerves and tissues generally; and the organic constituents are also nothing but transformations of the same organs. The urine, therefore, is the microcosm of the body.

By referring to this analysis, we shall have a good general idea of the constitution of the urine, and of the arrangement of its various elements. Although made by Berzelius many years ago, it is still the most accurate and reliable we possess.

ANALYSIS OF URINE. *(Berzelius.)*

Water	933.00
Uria	30.10
Uric Acid	1.00
Lactic Acid, Lactate of Ammonia, and Extractives	17.14
Mucus	0.32
Sulphate of Potash	3.71
Sulphate of Soda	3.16
Phosphate of Soda	2.94
Biphosphate of Ammonia	1.65
Chloride of sodium	4.45
Muriate of Ammonia	1.50
Phosphates of Lime and Magnesia	1.00
Silica	0.03
	1000.00

You will observe from this analysis, that the element which exists in the largest amount is water, and in fact on this depends the quantity of urine which is made. I should remind you that the analysis of Berzelius although perfectly reliable and exact, can hardly be a guide to us in the clinical examination of the urine, for it expresses the amount of solids only in one thousand grains of the fluid, and we shall find that many circumstances so interfere with the excretion of this fluid, that it is only by an examination of the amount and quantity of the solids contained in it during the twenty-four hours, that we can be conducted to any useful results. Thus, immediately after a hearty meal of meat, the amount of solids is vastly increased; an analysis of one thousand grains of the urine at such a period, would give a very large per centage of solids; an analysis several hours later might give an absolute diminution; in either case leading to inaccurate observation. The examination of the amount passed in twenty-four hours, would however give the mean of all the periods, and would be perfectly reliable. This precaution holds good both in disease and in health.

The absolute quantity of urine passed in twenty-four hours, varies considerably in the most healthy persons, depending on the external temperature of the air, on the action of the skin, on the amount of exercise taken, on the mode of living and on the amount of fluid which is drunk. According to the usual estimates, about one half of the water ingested, is, in a state of health, excreted by the kidneys, the rest being eliminated by the lungs, skin and intestinal canal. I think, taking all these circumstances into consideration, I shall make a safe estimate by telling you that in this climate any quantity between twenty and fifty ounces may be compatible with a state of health, the largest amount being, of course, passed in the winter, the smallest in the summer. There is however one circumstance I would impress on your recollection, and that is, that in all acute febrile diseases, the urine is invariably diminished in quantity far below its natural standard.

With regard to the means of obtaining the entire quantity of the urine passed in twenty-four hours, the plan adopted by Dr. Golding Bird in his clinical observations at Guy's Hospital, was the best. The patient was told to pass water at noon, this was rejected, and he collected and preserved all that he passed up to the same hour the next day. This method may readily, and without inconvenience, be adopted in private practice.

In making our estimates of the quantity of the urine, as to whether it is above or below the normal amount, we must be guided to a considerable extent by the habits of the patient. If for instance we know that a person when well, does not drink a very large amount of fluid, we may estimate the natural quantity of his urine at perhaps forty ounces; if when sick, he passes only fifteen or eighteen ounces in twenty-four hours, we may safely conclude that there is diminution, and that this results from the diseased condition under which he is laboring.

Again, if the same patient should pass, say sixty or eighty ounces in the twenty-four hours, this would be an excess, and we should proceed to search for some cause, constitutional or local, producing it. I shall have occasion more particularly to notice the effects and causes of increase or diminution in the quantity of the urine, when I direct your attention to the diseased conditions of this liquid; at present I must content myself by desiring you to bear in mind, that the quantity of the urine is in all cases a relative, and not an absolute one.

[TO BE CONTINUED.]

SPECIAL SELECTIONS.

LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the College of France, during the Winter Session, 1859–60.

By M. Claude Bernard, Member of the French Institute; Professor of General Physiology at the Faculty of Sciences.

LECTURE XXIII.—EXPERIMENTAL PATHOLOGY—ON THE ANALOGY BETWEEN MORBID CAUSES AND POISONS—Continued.

Gentlemen—From the earliest period to which our knowledge extends, it has been a favorite object with medical philosophers to connect, as far as possible, the symptoms exhibited by patients during life, with the morbid alterations discovered in the various organs after death. In many instances these laudable efforts have been fully crowned with success; and the light thrown upon this branch of the medical sciences, since a commencement of the present century, has, in no slight degree contributed to the progress of the healing art. But, although in the majority of cases, the results of post-mortem examinations enable us to ascertain the direct and immediate causes of death, our expectations are too often deceived in this respect; the most attentive survey leads sometimes, as you are well aware, to no satisfactory conclusion whatever; all the organs appear as sound as in the healthy state, and it becomes altogether impossible to account for the cessation of life. On the other hand, how frequently are extensive lesions discovered within the body after death, the existence of which had been previously revealed by no corresponding symptoms! All physicians whose attention has been devoted to the diseases of old age, have met with numerous instances of this kind. I remember myself having, more than once, witnessed similar cases, at the time when I was attached as an *interne* to the Salpétrière (a). On one occasion I discovered a large tumor in the immediate vicinity of the pons varolii, the presence of which had not been attended with symptoms of paralysis, notwithstanding the pressure exerted on so important a portion of the brain.

Morbid anatomy must not, therefore, be considered as a key to all the phenomena of disease : viewed by itself, it is utterly incapable of pointing out the hidden sources from which they spring ; and mere anatomical investigations, however minute, are altogether insufficient in this respect. In making experiments upon the abdominal nerves, I have frequently seen animals die, before any symptoms of inflammation had made their appearance ; and Chossat's interesting researches on the effects of starvation equally afford instances of sudden death under similar circumstances. Thus, in animals entirely deprived of food, a given period usually elapses before life is altogether extinct ; but, when the process is already far advanced, the slightest shock is sufficient to destroy life at once. A pigeon, which has been kept fasting for a considerable length of time, falls down, and instantaneously dies, when its claws are nipped ; while, if not interfered with, the animal's life is usually prolonged for several days. It would, of course, be quite unnecessary to state, that in making the autopsy, no alterations besides those which ordinarily result from inanition are met with. In what manner, therefore, is death to be accounted for in such cases? Chossat attributes it to syncope ; an opinion which our own experiments tend to corroborate. In fact, the heart's motion (as we have elsewhere stated) is momentarily arrested when a sensitive nerve is painfully excited ; it would, therefore, be quite possible that in animals reduced to a state of great debility, a slight sensation of pain should immediately produce death. There also exist, in such cases, other conditions, which the mere anatomist is unable to appreciate. The temperature of the medium in which animals are kept during the process of starvation, has a considerable influence upon the duration of life : for cold accelerates, and warmth opposes the destructive process ; and, in experiments in which circulation has been arrested in some of the larger vessels we also find this to be the case. When the vena porta, for instance, has been tied, the animal is soon deprived of its natural heat, and rapidly dies, if the temperature of the body is not maintained in a proper state by artificial means ; but when this precaution has been taken, the results of the operation seldom prove fatal.

(a) An Asylum for aged women, which contains upwards of five thousand inmates.

It would not be difficult to accumulate a still larger amount of evidence upon this point, but you have no doubt been fully convinced, by the facts to which we have just drawn your attention, that nothing beyond the mere mechanical causes of death is explained by morbid anatomy, and that other and more comprehensive modes of investigation are indispensable to those who wish to acquire a deeper insight into the secrets of living nature. To fill up this void as far as possible, is the chief purpose of our present researches, but in pursuing this object we must never loose sight of the example left us by those illustrious observers to whom the biological sciences are indebted for all the progress they have accomplished in moderations. The concatenation of natural phenomena, their mode of precession, and the laws according to which they are produced, must alone become the subject of our studies ; as to the intimate nature of things it lies entirely beyond the reach of human knowledge. It would not, for instance, be sufficient to state that certain poisons act upon the nerves, others upon the muscles or the blood; but when the peculiar mode of action of such bodies upon our tissues and the mechanism through which life is extinguished have been thoroughly ascertained in each case, we can go no further ; to explain the mysterious properties which enable a given poison to disorganize a given tissue, is not within the power of science. You remember, no doubt, the effects produced by oxyde of carbon upon the blood-globules, you are aware that a chemical combination takes place between these two bodies, which opposes the absorption of oxygen, and brings on a peculiar kind of asphyxia; the mechanical process of respiration still continues but is no longer attended with the revivification of the blood in the lungs. Here, then, we have a satisfactory explanation of the deleterious influence exerted by this substance ; but if we were asked *why* the combination takes place, we should of course be unable to answer the question. The affinity of oxyde of carbon for the blood-cells is evidently superior to that of oxygen, but the primitive reason of this difference lies beyond the limits of our scientific knowledge.

The physiologist must therefore be contended with tracing back the effects produced by disease to some primitive cause, the discovery of which puts an end to his inquiries ; and the influence exerted by toxic agents upon the organs of the living body will in this respect be found to exhibit a striking analogy with that of morbid causes. In what manner is the agency of poisons to be conceived ? Ought their effects to be viewed in the light of chemical combinations, which supercede the physiological changes that support life? Such is in fact the explanation we have adopted, as regards the action exerted by oxyde of carbon upon the blood-globules; but would it be proper to extend these views to all the different poisons with which we are at present acquainted? Are we to suppose that woorara is chemically combined with the substance itself of the motor nerves, so as to impede the progress of the nervous fluid? A similar hypothesis would evidently not be in accordance with facts: we find that when life has been protracted by artificial means, the deleterious agent is gradually expelled from the economy: now, if a permanent impression had been produced upon the nerves, we should not find this to be the case.

It therefore appears that toxic agents exert different modes of action upon the fundamental conditions of life: in some instances they seem to be chemically combined with the histological elements of the disorganized tissues: such, according to Liebig, is the case with respect to metallic salts. Other poisons on the contrary, circulate freely with the blood, and destroy for the time being its vital properties: now, the blood, as we have already stated, is the common medium in which all the tissues exist: if therefore a deep change occurs in its physiological properties, both muscles, glands, nerves, and other organs, are liable to experience a total derangement in their usual functions. The well-known experiments of Bichat upon the injection of venous blood into the arteries, afford a striking example of this; and it can scarcely be questioned that such is the mode of action exerted by woorara, strychnia, and all the other substances which are speedily eliminated from the body, when death has not been almost immediately the result of their presence.

It would therefore appear, that poisons might, in this respect, be divided into two principal classes: some of them give rise to stable and definite chemical compounds, are retained within the economy, and may be discovered by the process of analysis after death: others are speedily expelled from the body, and leave no visible marks of their passage. In the first case, permanent and incurable effects are produced: in the second, a transitory action is alone exerted, and when the patient recovers, the noxious principle has entirely disappeared. In short, gentlemen, we find, in all respects, a perfect resemblance between the effects of poison, and those of ordinary diseases: and in our next lecture we shall endeavor to complete the parallel between them.

LECTURE XXIV—OPERATIVE PHYSIOLOGY—ON THE PANCREATIC SECRETION.

GENTLEMEN—In the preceding lectures we have successively examined the principal methods employed for the purpose of obtaining the produce of certain glands which play a prominent part in the digestive functions. We have shown you how to collect saliva, the gastric juice, and the pharyngeal secretion, in a state of perfect purity. We shall now descend into the lower portion of the alimentary canal, in order to pursue our investigations into this branch of physiology.

Immediately below the pylorus, several important liquids are poured into the duodenum by various glands, some of which are placed on the outer side of the intestine, while others lie imbedded in its walls. We allude to bile, pancreatic juice, and the liquid secreted by Brunner's glands. We shall direct your attention to-day to the pancreatic secretion ; and we evidently could not have chosen a more interesting subject to conclude these lectures for the present session.

The various methods of collecting the intestinal fluids, although resting upon some general principles, require certain modifications in the case of each gland. There exists, as you are well aware, a vast difference between these various organs : the pancreas, for instance, is far from resembling the salivary apparatus, to which it has frequently been assimilated. As far as structure is concerned the comparison is just; but with respect to their physiological properties it is absolutely erroneous; and although the contrast is sensible enough in the healthy state, yet the effects of disease bring it into a much stronger light. Local disorders, in fact, almost exclusively enjoy the property of disturbing the salivary secretion, which remains unimpaired during the course of other affections. It is, therefore, comparatively easy to collect this fluid in large quantities without modifying its normal characteristics; for the slight inflammation which sometimes results from the experiment, is in this respect altogether harmless. Far different is the sensibility exhibited by the pancreatic gland : the general perturbations of the economy exert a powerful influence upon its functions, and the least degree of inflammation immediately perverts the properties of the fluid which it produces ; when, therefore, peritonitis arises in consequence of the operation, the experiment cannot be pursued with any hope of success, no reliance whatever can be placed upon the results obtained, a healthy secretion being no longer placed at our disposal ; and if the utmost care is not taken to avoid this unfortunate complication, which too often attends operations performed upon the abdominal viscera, the properties of the pancreatic secretion cannot be rationally ascertained.

The absolute necessity of establishing definite rules for the performance of this delicate operation is evident, for we cannot expect the results obtained by different observers to agree, unless the conditions in which the experiment takes place are identically the same in every case. Let us, therefore, consider the anatomical disposition of the pancreatic ducts, in man as well as in the lower animals; after taking this preliminary step we shall endeavor to lay down, as clearly as possible, the requisite directions.

The pancreas in the human species is provided with two excretory ducts, the first of which falls into the ductus choledochus; while the second opens separately into the duodenum. Here is the stomach of a criminal, preserved in alcohol; the organ having, therefore, belonged to a healthy subject, must be supposed to exhibit the normal state. Two little silver probes being introduced from without into the pancreatic ducts you will see them appear on the inner surface of the intestine and their direction will be easily ascertained. The extremity of the probe passes into the duodenum, as you perceive, just below the pylorus. One of the ducts is provided with a distinct aperture, while the other falls into the biliary canal. In this preparation both ducts happen to be of an equal size, but in the majority of cases that which is anastomosed with the ductus choledochus is a little larger than the other. And, lastly, a direct anastomosis exists between the two ducts; it is fully exhibited (as you see) in this preparation. This disposition is worthy of notice, since, after tying one of the two excretory canals, the pancreatic secretion flows through the other into the digestive tube.

A similar disposition exists in the dog; the pancreas is also provided in this animal with two ducts, one of which opens into the duodenum just above the orifice of the ductus choledochus, while the other unites with the biliary canal, a direct communication existing between the two ducts, as in the human species. A small tubercle on the internal surface of the intestine points out the seat of the principal orifice, common to both the pancreatic duct and the biliary canal; immediately above this point a second tubercle corresponds to the opening of the accessory, or independent, pancreatic duct. We here exhibit the stomach of a dog, in which the above-mentioned dispositions are conspicuous, and it will be easy to show you the anastamosis between the two ducts by a direct experiment. When a colored liquid is injected into one of these apertures, it flows immediately from the other, affording a manifest proof of the communication between them.

(M. Bernard here introduces a fine syringe into the principal orifice, and injects water with force into the corresponding duct; a jet immediately escapes from the neighboring aperture.)

The existence of this anatomical peculiarity in dogs has been described long ago by R. De Graaf, and was even known to exist in man. Meckel states that in the fœtus a double canal corresponds to a double pancreas; in the adult, this bifidity disappears, according to Meckel, and only one duct is found, the double gland having coalesced into a single mass. Although the celebrated anatomist was mistaken in this particular, I readily believe in the bifidity of the pancreas during the fœtal state. I have found this to be the case in the canine species ; and the existence of a double apparatus in the fœtal state, which corresponds to a single organ in adult animals, is of very frequent occurence. In the gallinaceæ, for instance, the left ovary is atrophied when the bird arrives at its full development.

The dog is of course the animal usually employed in making experiments on the pancreatic secretion ; and the accessory duct is generally chosen for this purpose. The operation is performed in the following manner :

An incision is made upon the abdominal parietes in the median line, in the vicinity of the pylorus ; the muscles being drawn aside by an assistant, the operator seizes the duodenum with a forceps, separates it from the adjoining parts, and draws it out through the wound. The pancreas, the intimate connections of which with this portion of the digestive tube are well known, is in this manner extracted from the abdominal cavity ; the vessels are then drawn aside, the utmost care being taken not to injure them ; and a small portion of the accessory duct is thereby laid bare. On this point the incision may be performed, without irritating the delicate gland, which the slightest touch would inflame. A thread being passed under the duct, it is opened, and a silver tube is fixed by means of a ligature in its cavity ; it is often found necessary to fasten the tube in the duct in two separate places, in order to prevent it from escaping. The duodenum and pancreas are then carefully replaced within the abdominal cavity, the extremity of the canula still protruding from the wound. The tube employed for this purpose must be four or five inches long, and provided with a stylet, to clear it from obstructions.

The pancreatic secretion has not exclusively been studied in the canine tribe: its properties have been examined in several other animals.

In the cat the disposition of these ducts is so irregular as to baffle all description: in most cases, there exist several of them. In the rabbit this distribution is highly favorable to the experiment; they spread over the mesentery, in the shape of a fan, before penetrating into the duodenum; nothing, therefore, can be easier than to open them and insert a tube into the cavity. The anatomical preparation which we place here under your eyes, exhibits the above-mentioned arrangement.

In the ox the pancreas is equally provided with a large number of excretory ducts; the greater part of these are anastomosed with the biliary apparatus; some of them fall into the ductus choledochus: others arrive at the gall-bladder itself; and the biliary ducts are not unfrequently connected with little pancreatic glands, which pour into their cavity the fluid which they produce. There always exists, however, one independent duct at least, which opens separately into the duodenum; on this point is the operation performed; but even after tying most of the accessory ducts, it is impossible to collect the whole of the liquid secreted by the pancreas, a large proportion of which flows directly into the gall-bladder. We place here under your eyes the duodenum of an ox, with the neighboring portions of the stomach: and in this preparation you see the ducts which arise from the pancreas, freely anastomosed with the various ramifications of the billiary canal.

The method of obtaining pancreatic juice which has just been described, is altogether different from the one adopted by De Graaf: in his researches on this subject, he used to make a wide incision on the abdominal walls, which allowed the whole intestinal mass to escape ; the pancreas being then separated from the neighboring parts a tube was introduced into its principal duct ; but the subsequent results of this somewhat brutal separation appear to have vitiated the secretion of the gland, for De Graaf's description of the properties of this fluid is far from coinciding with the notions actually entertained on this point.

Other observers had opened the duodenum, in order to obtain a supply of pancreatic juice, but Tiedemann and Gmelin had recourse to the operation we have described, and were thus enabled to obtain large quantities of this fluid without wounding the intestine : the advantage of avoiding this useless injury is too evident to be explained.

The operation must in every case be performed while the animal is in full digestion, for in the healthy state the secretion only takes place at that moment, and the nerves of the pancreas being imperfectly known, we are unable to bring galvanism to bear upon them, for the purpose of stimulating the activity of the gland. On the other hand it is of the highest importance to obtain a certain quantity of the fluid at once ; for if several hours are allowed to elapse after the operation, before any is collected, an acute inflammation may have taken place, and a vitiated secretion is obtained instead of the normal products of the gland. In most cases, however, if the operation has been properly performed, these accidents do not occur, and the animal furnishes a healthy secretion in abundance, for the space of several days.

EDITORIAL AND MISCELLANEOUS.

IMPROVEMENT IN MEDICAL TEACHING.

The Oct. 13th number of the *Medical and Surgical Reporter*, gives an account of "Introductory Day" at the medical schools of Philadelphia, and mentions that Prof. Carson, of the University of Pennsylvania, alluded to the change just inaugurated in that school of having but one introductory lecturer, instead of seven, at the beginning of each course; thus saving a week of valuable time. In the second session of the New Orleans School of Medicine this rule was adopted, and it has been adopted by others since that time. In a few years it will be the universal rule.

But, what is more important by far, we find the *Reporter* strongly advocating the cause of Experimental Physiology in the schools. Here, again, it has our approbation, while it warmly approves one of the great improvements instituted in the South by the New Orleans School of Medicine. So far as we are aware, there is but one other school (the College of Physicians and Surgeons, of New York) where this unrivalled and only proper plan of teaching physiology is adopted; but it is so manifestly necessary, so entirely in keeping with the spirit of the age, that it will force itself on all who now reject it. Young men capable of teaching physiology experimentally are springing up around us, and they will take the chairs. Urge the improvement, Messrs. Editors. That it will be universal is true, but the sooner the better, and you are working in a good cause. Oratorical displays on abstruse physiological points have had their day, and the intelligent mind of our youth must have demonstrated facts, not dogmas.

We are sorry that, in one of their late numbers, the editors of the *Reporter* will insist that we ridiculed the American Medical Association. But we will not discuss the point, feeling confident of acquittal before a proper tribunal, if judged by our record—as the politicians say. All we have to say of the *Reporter's* attack is—*Telum imbelle sine ictu.*

The *Reporter* says that the New Orleans School of Medicine was not the first to establish a regular chair of Clinical Medicine. Perhaps not. If not, we stand corrected, and that most cheerfully. But tell us, gentlemen, *in what school, previous to our movement, was there a regular chair of Clinical Medicine?* None of the mere bogus titles attached to somebody tacked on to a faculty; but, where and who was the professor, who did actually labor in this branch, over sick men, with the students at his elbow, every day, and during the whole session?

In conclusion, we place before the editors of the *Reporter* the *daily practical* report of the New Orleans School of Medicine, with its tri-weekly side dishes—the table being set right at the door of the institution, and not a dozen or twenty squares off, or even across rivers.

Dr. Flint, Sr., visits Medical Wards every day at 8½ A. M.
Dr. Fenner " " " " " " 9½ " "
Dr. Peniston " " " " " " 9 " "
Dr. Choppin visits Surgical " " " " 9 " "
Dr. Brickell " Obstetrical and Medical " " 9½ " "
Dr. Beard visits Eye Wards, Mondays, Tuesdays and Thurdays.

Dispensary, in College building, open three times a week. Can you spread a table like it, gentlemen?

N. B.—We had just sent the foregoing to press, when here comes the *Reporter* for October 20th, and again the Editors are "down on us" for singing the praises of New Orleans as the proper place for the student of medicine. They babble about our "self-glorification," "gratulation," and "self complaisance," and even call us the "organ" of a school. We are really at a loss to know what especial spite the editors have against us, as we have never trod upon their corns that we know of, unless when we have felt ourself urged to present to the world the really superior advantages of New Orleans as a place for the student of medicine. Living in *Philadelphia*, of course the editors regard the telling of such wholesome truths as near akin to sacrilege. So evident is this morbid sensitiveness, if we were not assured by reliable authority that the editors are real *men*, we would swear that the editorial sanctum of the *Reporter* was filled with "strong-minded" old maids.

But grant that we are a little vain of all that surrounds us, and then grant (for the *Reporter's* sake) that we are an "organ;" yet we keep no advertisement on our back, asserting that we are "the most popular and widely circulated medical periodical in the United States;" and we are the "organ" of one school, while the *Reporter* is the organ of *three*—its own asseverations to the contrary notwithstanding—and we have the best authority for knowing that, while a man can serve one master, he cannot serve three.

THE LECTURE SEASON OF 1860–61.—At this date the preliminary lectures in the schools of this city are going on, and on the 12th November the regular course begins. The prospects for large classes are flattering, and students who visit New Orleans this winter will find a really practical, substantial feast spread before them, such as cannot be found elsewhere in this country.

HEALTH OF NEW ORLEANS.—As we predicted, New Orleans has escaped an epidemic of yellow fever this season. From conversations with reliable medical men, we find that there are those who do not believe we have had a genuine case of the disease, while equally reliable men think we have. One thing in favor of the first position is, that we are informed by the worthy House Surgeon of the Charity Hospital, that there has been no case of black vomit in the institution. As an humble observer of the history of yellow fever in New Orleans, we find in this simple fact satisfactory proof enough for ourself. Even dengue has nearly disappeared, and our death-rate is down—our city is healthy.

PROFS. FLINT, SR. AND JR., have arrived safely and are hard at work at their respective posts in the New Orleans School of Medicine. We are happy to find them both in the enjoyment of real health, and capable of any amount of labor for the good of their pupils.

Dr. Flint, Sr. has his office at 173 Common street; consultion hours, from 12 to 2, P. M.

BOOKS AND PAMPHLETS RECEIVED.

"*On the Theory and Practice of Midwifery.* By FLEETWOOD CHURCHILL, M. D. M., R. I. A., etc., with additions by D. FRANCIS CONDIE, M. D., etc. *With one hundred and ninety-four illustrations. A new American, from the fourth corrected and enlarged English edition.*"

One of the best books on the subject of which it treats, and ably edited.

"*The principles and Practice of Surgery.* By ROBERT DRUITT, Licentiate of the Royal College of Physicians, etc. *A new and revised American, from the eighth enlarged and improved London edition. With four hundred and thirty-two illustrations.*"

A standard work, which keeps up with the progress of the day.

"*A Practical Treatise on the Diseases of the Lungs: including the Principles of Physical Diagnosis.* By WALTER HAYLE WALSHE, M-D., etc., etc. *A new American, from the third revised and much enlarged English edition.*"

Another standard work, which richly merits the patronage of the profession. We may review it.

"*On the Diseases, Injuries, and Malformations of the Rectum and Anus, with remarks on Habitual Constipation.* By T. J. ASHTON, Surgeon to the Blenheim Dispensary, etc., etc. *From the third and enlarged English edition. With illustrations.*"

No man who pretends to treat such affections should be without this valuable work.

The foregoing works are all from the prolific press of Blanchard & Lea, and are "gotten up" in their best style. We have also received another work from them, which will be noticed a little *in extenso* in our next.

"*Electro-Physiology, and Electro-Therapeutics; showing the best methods for the Medical Uses of Electricity.* By ALFRED C. GARRATT, M. D., etc. Boston: Ticknor & Fields, 1860."

This interesting work has been reviewed in our journal by an able pen, though we have not before acknowledged the receipt of it.

ERRATUM.—In the October number of this journal, page 623, third paragraph, second line, read *former*, for "the former."

We find the following in the *Medical and Surgical Reporter* for October 6th. It is by no means uninteresting.

[CORRESPONDENCE.]

DISHONORABLE MERCENARY ARRANGEMENTS BETWEEN PHYSICIANS AND APOTHECARIES.

Philadelphia, Oct. 1, 1860.

MESSRS. EDITORS: The manner in which a number of medical practitioners are in the habit of exclusively patronizing some particular apothecary has often attracted my attention, and awakened my suspicions in regard to its disinterestedness. At the same time the professional character of some of those who are certainly in this habit would seem to exonerate them from such suspicion.

Were the apothecaries, who are the sole recipients of the favors of those to whom I allude, the best to be found and most deserving of patronage, or had they any peculiar preparations which could only be obtained from their establishments, there might appear to be some reason in extenuation of the practice. But my attention, which has been lately attracted to the subject, has confirmed me in the opinion that the contrary is indeed the fact.

I had often heard of a speculating collusion between physicians and apothecaries, and have long had sufficient evidence of its existence, to some extent; but it is only lately that I have been led into enough exploration of the matter, to convince me that the vice exists to such an extent, and among so apparently respectable a class of practitioners, as to need the most thorough censorial investigation. There are druggists who make but little concealment of the practice, and there are practitioners whose prescription patronage is offered to the highest bidder. The arrangement appears to be an agreement by which the physician sending a prescription to an apothecary, receives from the latter a percentage on the amount paid for it. This percentage seems to vary from fifteen to fifty per centum of the receipts.

The inducement, therefore, of the physician in such an agreement, is to get as much money into the hands of the apothecary as possible, so that he may increase his own share of it. With this object he prescribes as much and as often as possible, giving large doses, and changing the remedy frequently. An eight, or twelve ounce mixture, in which a grain or two of the tartrate of antimony is dissolved, and flavored with a bitter tincture, is a favorite prescription with a practioner in extensive practice in the upper part of this city, and who receives almost a moiety of the amount paid for it by the patient. It can well be imagined that such a course may be profitable to both physician and druggist.

The plea of those medical men, who are given to this vice would perhaps be that many of their patients do not pay them for prescribing, and that only by extortion in charging for the medicine, to secure which cash must be paid, can they be compensated for their services. Such, in the state of affairs which they have themselves brought about, may be the case, but the remedy is in their own hands. They have only to refuse attention to those who do not compensate them, and who are not proper objects for professional charity. But the speculative collusion between the physician and druggist, tends to increase the unfortunate habit of not compensating physicians, because the former becomes indifferent about demanding a fee, while he is certain of eventually getting something from his well-drugged patient, through the intervention of the latter.

Its oppressive effect on the poor and suffering patient, who seeks relief from his afflictions by an appeal for professional charity, and then has his last pennies extorted for a prodigious drench of slop, is to contemptible for any association with a calling, which claims to have the relief of human suffering for its object.

Perhaps the practice is confined to certain localities of the city; my own observation of it has been mostly confined to one rather suberban neighborhood.

Every honorable physician will acknowledge how degrading to the profession is this disreputable truckling for lucre. It is already suspected, and openly hinted at in the community, and must, in becoming generally known, as it certainly will, be toward the profession the cause of an irreparable loss of confidence and respect.

I appeal to every honest medical practitioner to aid in exposing and condemning, as unworthy of professional courtesy, every man whom he knows to be guilty of a dishonorable alliance with druggists, and to withhold from the latter the patronage of his own prescribing.

To the Censors of medical and pharmaceutical societies the subject commends itself, as one deserving their scrutiny.

ESPRIT DU CORPS.

EXCERPTA.

ON EPIDEMIC DYSENTERY.—*By Professor Trousseau.*—The year 1859 was remarkable in France for the prevalence of a terrible epidemic of dysentery. While in former years the affection has been observed only in circumscribed localities, it prevailed during the past year almost universally. Paris, too, which has perhaps been exempted from epidemic dysentery for a century, has had, on the present occasion, to pay a large tribute. Commencing towards the end of July, the epidemic attained its maximum in September, undergoing a notable diminution in intensity towards the end of October. Of all epidemic diseases, dysentery is the most murderous, typhoid fever, cholera, diphtheria, variola, and scarlatina being but as child's play compared with it. These affections prevail only accidentally; while dysentery decimates whole populations, returning at certain fixed epochs, as every three years, for example. Desgenettes declared that it killed more soldiers than the enemy's canon did between the years 1792 and 1815. The etiological circumstances of the invasion of an epidemic may be quite inappreciable. Thus, at Tours, there are two barracks placed in identical hygienic conditions, and yet, during thirty years, it has always been the cavalry barracks in which dysentery has prevailed epidemically. The reputed effects of the excessive use of fruits in generating the disease is very doubtful, seeing that it sometimes rages when fruits are very scarce, as in 1859, while it may not be met with when they are in excessive abundance, as in 1858.

Passing by M. Trousseau's description of the disease, we come to his account of the treatment. His right to speak with some authority upon this point, is derived from the fact of his having witnessed four epidemics of the disease at Tours, Versailles, and Paris, during which the victims were either young and vigorous soldiers, aged men and women, or young children. Moreover, as Reporter on Epidemics to the Academy he has to peruse the accounts of the various epidemics which appear throughout France. Some thirty or forty years since the traditions of the former age were abandoned, Broussais sweeping away the whole of the empirical modes of treatment in favor of his doctrines. In fact, with an inflammation so violent in view, it was then difficult not to give in to them ; and the antiphlogistic treatment was put freely into force, and when unsuccessful, this was believed to be because it had not been carried far enough. In 1823 or 1824, however, M. Bretonneau, imbued with the Medical doctrines of Stahl and Sydenham, set on foot a reäction against the doctrines of Broussais, by resorting to a substitutive mode of treatment. He gave an ounce of the sulphate of soda internally, and administered the same dose in a very copious enema, once or twice a day, continuing the practice as long as the stools remained bloody. As soon as they became bilious and serous, the sulphate was only given once a day, then every other day, and afterwards at still rarer intervals. In 1828 or 1829 M. Trousseau published an account of an epidemic treated with success in this manner. In 1842 an epidemic occuring in the garrison at Varsailles was similarly treated, but with less marked success ; however, at all events, the Military Surgeons in attendance—almost all pupils of Broussais—agreed that the sulphate of soda was preferable to blood-letting. Unanimity in favor of neutral salts, of one kind or another, has also nearly prevailed in the reports addressed to the Academy from all parts of France. Frequent failures have undoubtedly occurred, but, in general, when advice is sought early, considerable and extremely rapid success is the result. Induced by the success of the calomel treatment employed by the English at Gibraltar, M. Trousseau has several times put it into force, and frequently with good effect in severe cases of dysentery, occurring, however, sporadically. He still resorts to it when the weather is very hot, but in cold and wet seasons he has found salivation and other ill consequences result from its employment. In children, too, who can only be got to take the sulphate of soda with the greatest difficulty, he prefers giving calomel. Ipecacuanha, which was so much in vogue during the last century, is now seldom employed. Opium is one of the sovereign resources of the *materia medica*, and is perhaps the pharmaceutical substance with which most harm may be effected. It is in incessant use, and is strangely abused, being, in M. Pidoux's happy phrase, the "knout of the therapeutist." With it every patient who complains or suffers is fustigated. In vain may you try the rational procedures consecrated by usage, and in vain do you appeal to your intelligence and your experience—all goes for nothing—pain is present, and the indication which dominates all others is to assuage such pain, for which opium must be prescribed. With such logic as this we make but a bad business of it, or may engage in a very perilous work. A distribution of opiates with easy compliance is the mark of an impatient and ignorant practitioner. It is a very convenient procedure, and one to which every capacity is competent, which consists in "drying up the intestinal canal" by laudanum in a case of diarrhœa, and in roughly imposing silence upon the symptom pain in a case of dysentery attended with horrible tormina. "I do not pretend to say that, after having put into force the evacuant treatment, that we must never, when the patient is suffering cruelly, temper his pains by a few drops of laudanum, but I entirely object to the practitioner at once drying up the intestinal canal (for this is the aim) in a case of diarrhœa or dysentery. Let him not meddle with opium except with cautious reserve, or he will be the cause of the typhoid symptoms, which will soon make their appearance." After passing in review the various other means of treatment, to which he does not seem to attach much importance, M. Trousseau adds, that all these means will be of little avail if not adopted prior to the occurrence of important pathological changes. Otherwise, every effort will be paralyzed, and no means will avail against the horrible ravages of an epidemic. In conclusion, above all things, let the condition of the diet be attended to, for this is of vital consequence. Insist that two, three, or even four quantities of soup (*potage*) be taken daily, and prescribe feculent drinks, as barley and rice waters. In all the comparative trials, which have been made of treating dysentery by rigorous abstinence, or by allowing aliment in wise moderation, advantage has attended the latter procedure.—*Gazette des Hôp.*, Nos. 10 and 14.

ON THE EFFECTS OF CHRONIC LEAD POISONING ON THE FŒTUS.—*By M. Paul.*—M. Paul's attention was first called to this subject by the case of a female type-polisher, who, prior to her exposure to habitual contact with lead, had borne three fine children, while of the ten pregnancies which had since then occurred, eight were attended with miscarriage, the only child born at full time dying when five months old. She informed him that almost all the women similarly employed either miscarried or were unable to rear their children. Investigating the subject farther, he found that these statements were founded on fact, and that not only was this hereditary influence imparted by the mother who had been working with lead, but also by the father, when the mother herself had not been exposed to such influence. Of this latter fact he has not been able to obtain more than 7 instances; but altogether his paper is founded upon 81 cases which he has investigated. In some instances the effect upon the fœtus has been produced after but slight exposure, and in which the death of the infant has been almost the sole accident resulting from such exposure. Of the 81 individuals, male and female interrogated, in 29 pregnancies occurred while engaged in manipulating the lead, these pregnancies amounting in all to 123. The results were 64 abortions, 4 premature labors, and 5 born dead, that is 73 children dead prior to delivery! Moreover, 20 children died in the course of the first year, 8 in that of the second, 7 in that of the third, and 1 later. There are 14 living children, but 10 only more than three years of age. In 15 instances, too, the women suffered from metrorrhagia, which was probably, in fact, abortion —for the saturnine poisoning, in the degree in which it causes the death of the product of conception, does not usually disturb the menstruation itself, either in girls, in persons who have not borne children, or in the intervals of pregnancies. The author is still engaged in investigating the entire subject, but in the meantime desires to call attention to what he believes to be a new subject of inquiry.—*Archives Générales*, tome xv. pp. 513–536.

ON THE DEGLUTITION OF ALIMENTARY FLUIDS.—Prof. J. H. Corbett, M. D., in a paper read before the Physiological Subsection of the British Association for the Advancement of Science, at its recent meeting in Oxford, endeavored to prove that there are two distinct forms of deglutition ; that, while the alimentary bolus is propelled with rapidity over the epiglottis, fluids can flow in two streams, one at each side of the epiglottis and of the aryteno-epiglottic folds, without the danger incidental to its passage over the central aperture of the larynx. This occurs in the infant and the mammal during suction ; it takes place in the sipping of fluids, swallowing of the saliva, and during drinking in a continuous draught. Ordinary drinking is accomplished by gentle muscular movements, which should not be confounded with the gulping of fluids. In gulping, the fluid is rapidly and forcibly propelled backwards, and this act somewhat resembles the deglutition of solids.

In experiments made by the author on the dead body, fluid poured upon the dorsum of the tongue passes backwards into the pharynx in two streams, through the grooved passages situated at each side of the epiglottis and aryteno-epiglottic folds.

In the living body, during the deglutition of fluids, the uvula falls forward upon the tongue, in front of the epiglottis ; and both the uvula and epiglottis afford protection to the respiratory apparatus. The fluid is divided by the uvula into two currents, which descend at each side, under the half-arches of the palate ; that such is the principal use of the uvula. The anatomical arrangements in the human body are perfectly adequate for the transmission of fluid in this safe manner. The anatomy of the porpoise, in which the larynx rises in the form of a blowtube for several inches above the level of the tongue, affords a strong confirmation of this view ; which is further sustained by instances in which the epiglottis has been destroyed. The distinctness of the two forms of deglutition is also indicated by the fact that the mouth may be filled with food, and yet drink can be swallowed without displacement of the solid aliment.—*Brit. Med. Jour.*, July 21, 1860.

AMPUTATIONS AT THE HIP-JOINT.—M. Jules Roux gives an account (*Gaz. Hebdom.*, 1860, Nos. 18, 19) of six amputations at the hip-joint which have been recently performed at Toulon, four of these being followed by success. He also refers to six other cases which have occurred to other officers of the French marine, making in all 12 cases, with 7 deaths and 5 recoveries. Of these, 5 were immediate or primary (some hours or days after the accident), and all fatal; 4 mediate or secondary (several months after the accident or the disease), 3 recovering and 1 dying; and 3 ulterior or consecutive (one or more years after the accident or disease), 2 recovering and 1 dying.

In the latter part of his paper, M. Roux adduces the recent evidence of the French military surgeons, in proof of the almost invariable fatality of immediate hip-joint amputations, and the frequent triumphs of conservative surgery in gun-shot injuries of the upper third of the femur. Indeed, he gives a list of 21 cases of this injury examined at his own hospital, at Toulon, since the Italian war, in all of which consolidation of the fracture had taken place. Not one of these men would have survived had primary disarticulation of the femur been performed; and in only one instance of the number, six months after the occurrence of the injuries, had secondary hip-joint amputation become necessary. With respect to gun-shot fractures of the lower two-thirds of the femur, in spite of cases of cure without operation, all statistics prove that amputation is more successful than abstaining from it. The general conclusions are: 1. That gun-shot fracture of the upper third of the femur is an exception to the law which requires amputation, after all gun-shot injuries of this bone. 2. That several months after gun-shot wound of the femur, when the necessity for an operation has become obvious, amputation at the hip-joint should be preferred to that of contiguity, whatever portion of the bone may have been fractured. The longer the operation can be safely delayed, the greater are the chances of recovery.—*Brit. and For. Med.-Chir. Rev.*

INTRA-UTERINE FRACTURES.—Mr. B. E. Brodhurst read a paper on this subject before the Royal Med. and Chirurg. Soc. (March 27, 1860). He commenced by referring to some points of distinction which have been observed in fractures in utero. He stated that fracture might be simple or compound—disunited or reünited at birth; or that solution of continuity might be owing to imperfect ossification and congenital rickets. Having alluded to these several varieties, he proceeded to remark especially on reünited fractures in utero; and he quoted cases from Ploucquet, Kopp, Devergie, Carus Schubert, Sachse, and Moffat; relating, also, the cases which had occurred in his own practice. The causes of intraüterine fracture were lastly considered; and it was stated that neither contre-coup nor compression by the walls of the uterus could act so as to produce fracture, so long as the membranes—the chorion and amnion—remained entire; but there was reason to believe that intraüterine fractures occurred as effects of physical injuries—that the origins of these fractures and of congenital distortions were similar, and that they were occasioned by abnormal muscular action. Two cases of congenital double club-hand and double club-foot were adduced as examples of the mode in which abnormal muscular action and distortion are induced in the fœtus; and, moreover, the author stated his belief that, in these cases, whether of fracture or distortion, the effect varies as the cause varies, and that temperament or other like condition may probably also modify the effect.—*Med. Times and Gaz.*, April 7, 1860.

OBSERVATIONS ON THE TREATMENT OF PUERPERAL ECLAMPSIA: *By Dr. Pirrie, Belfast.*—There is more or less cerebral congestion in these cases, which may be followed, in rare cases, by effusion, but this is not the *primary* disease. It is a direct consequence of the spasmodic action of muscles of respiration interrupting the oxygenation and due circulation of the blood. He believes true puerperal eclampsia is caused by albuminuria. A condition very analogous, if not identical with anæmia, is produced by the kidneys permitting the exudation of serum, while they retain excrementitious matters, which should have been eliminated, causing the contaminated blood to circulate with difficulty, giving rise to œdema.

Simpson, who was one of the first to demonstrate the intimate connection between albuminuria and puerperal eclampsia, though hesitating to place them in the relation of cause and effect, yet describes them as, perhaps, simultaneous or successive effects of one cause, viz: a pathological state of the blood, to the occurrence of which pregnancy peculiarly disposes the patient.

Dr. P. is more inclined to refer it to congestion of the kidneys, caused by a direct pressure of the gravid uterus. In support of this view, we have the vast preponderance of such attacks in primiparæ, and the rapidity with which the albumen disappears from the urine after delivery. Sir Charles Locock, in the article "Convulsions," in the *Cyclopedia of Practical Medicine*, in assigning mental emotions as excitants of these paroxysms, says: "It has been long remarked, that unmarried women are more liable to be sufferers from convulsions, from the shame and distress under which their children are usually born." When we bear in mind the efforts made by such women to conceal their condition, we may readily conclude that direct physical pressure has more influence in the production of the convulsions in these cases than mental emotions.

The treatment is to relieve the pressure, not on the brain, but on the renal vessels; eliminate noxious matters from the blood; and stimulate the kidneys to a healthy secretion. These rules are applicable, whether the convulsions appear during pregnancy or labor, or after delivery. Thus, we may act freely on the stomach and bowels, reducing the contents of the abdomen, and eliminating noxious matters from the circulation; we may restore healthy urinary secretion by the administration of benzoic and tartaric, or other vegetable acids, as recommended by Braun and Fresichs. Finally, when danger is imminent, evacuate the uterus.

Chloroform and ether are useful adjuvants. In this connection, we must remember the highly important fact discovered by Kussmaul and Tenner, in their experiments, that in animals subjected to etherization, convulsions could not be induced.

While opposed to venesection as a prophylactic and curative agent, as he firmly believes its tendency is to increase the severity of the attack, to debilitate the patient, and delay the recovery, yet he thinks local bleeding, leeches to the temples, or cups to the nape of the neck, may be beneficial by moderating the secondary congestion. In lieu of the warm bath, which is very difficult in the majority of cases to employ, he prefers sponging the surface with warm vinegar and water. To recapitulate :

Convulsions are *not* caused by plethora of the brain, but by anæmia or defective nutrition.

Depletion aggravates the tendency to convulsions.

All cases of true puerperal eclampsia are associated with and caused by albuminuria, which is most probably caused by renal congestion, the effect of direct pressure.

The indications for the rational treatment are :

To relieve pressure, the cause of renal congestion. Eliminate noxious matters from the circulation, and to stimulate the kidneys to healthy secretion.—*Dublin Quar. Jour.*, May, 1860.

SCIATIC NEURALGIA INSTANTLY CURED BY CAUTERIZATION OF THE EAR.—*Translated from the French for the San Francisco Medical Press.*—Madame A——, aged forty-six, of an excellent constitution, was taken, twelve years since, with an acute pain in the second toe of the right foot, which soon extended to the leg, to the thigh, to the trochanteric region, and lastly to the sacral region ; since that time Madame A. has had no cessation of suffering. Many physicians had bestowed their cares upon her during that time, but none of their treatments had succeeded to solace momentarily.

A year since I was consulted by Madame A., who complained of an insupportable pain through the whole length of the sciatic nerve, the popliteal, and the musculo-cutaneous branch, heaviness of the arm, and buzzing in the ear of the same side. In indicating to me the direction that the pain took, she traced the exact course of the nerves to the second external branch of the internal and superficial branch to the dorsum of the foot, which is a division of the musculo-cutaneous branch, and which ramifies on the external side of the second toe, and internal side of the third.

Madame A. complained that she was not able to attend to her daily duties. She walked with great difficulty, much pain, and could not do so without leaning to the side opposite to the neuralgia, and limping somewhat; she had never been able to join her hands above her head. Once reclined or seated, it was with the greatest difficulty that Madame A. could raise herself; the same trouble was experienced in lying down. Besides, it was impossible for her to raise herself when down with anything weighty in her hands. The preparations of colchicum, frictions, cups, the application of a salt of morphia upon large denuded surfaces, were counseled by myself, not only without success, but even without any relief.

About a month since, I returned to the blisters, hoping to obtain some moments of respite from such cruel suffering, but the result was as negative as the first time. It was then I decided, in the presence and by the aid of Dr. Delery, to practice the cauterization of the ear.

The patient lying down on her left side, we applied upon the anterior part of the helix, at its entrance into the concha, a fragment of a female sound, having hollowed the end to rest against that portion of the ear. We introduced rapidly into this tube a small pointed cautery, with a double edge, and heated to a white heat. The described portion of the helix was divided almost the thickness of its cartilage. The patient experienced an acute pain, accompanied with a vibratory motion in the interior of the ear. Five minutes after the operation, we desired Madame A. to raise herself and walk in the apartment. To her great surprise, she executed nimbly, and without assistance, movements which she had been unable to perform for many years. She could lower and raise herself without experiencing the least inconvenience, except a slight numbness of the second toe.

To-day, the eighth day after the cauterization, the pain is not in the least degree reproduced. Madame A. has been able, to her great satisfaction, to join her hands above her head, go to mass without limping, walking as straight, in spite of her obesity, as when young. Madame A. told us, also, that through the whole duration of her sickness, she had experienced a fullness of the stomach, which rendered respiration painful. All have disappeared; sciatic pains, heaviness of the arm, buzzing of the ear, swelling of the stomach. There only remains of the neuralgia the sensibility of the second toe.

This case is doubly interesting with regard to the duration of the sciatica, and the rapidity of its cure. We do not hesitate to place it in the first category of M. Malgaine, that is to say, in the first rank of complete and instantaneous cures.

M Martin Lauzer, who, I believe, was the first who introduced this new method of treatment into the medical practice, counsels the cauterization of the ear in neuralgia of the 5th pair, so rebellious to all known means, even moxas.

It would appear that the ear is not at all the definite point of election, for, in 1847, M. Robert, practitioner in the Beaujone Hospital, performed a cauterization upon the dorsal surface of the foot, for a sciatic neuralgia of six years' standing, and cured it perfectly.

Another case of inguinal and sciatic neuralgia was cured by the same method.

A last consideration, which is not wanting in importance to the practitioner, and should fix our attention, is that we see Mr. Duihenne, of Boulogne, produce the same effects by a procedure of galvano-cutaneous excitation, which, by the pain it produces, rivals the auricular cauterization. H. RANCE.

VITALITY OF TOADS.—Towards the year 1850, a workman in the neighborhood of Blois (France), struck a mass of silex with his pickaxe, and saw a live toad jump out of the stone. At that period doubts were entertained as to the supposed indefinite vitality of toads, which had been deduced from the above-mentioned fact; and M. Dumeril showed that toads, having cartilaginous ribs, could introduce the whole body where the head would enter. These animals are fond of slipping thus into very small apertures and crevices; and hence the error about their vitality when confined within stone. M. Milne Edwards's father, in order to bring the matter under direct experiment, buried some toads in plaster, and where, from the porosity of the plaster, or the existence of crevices, air could penetrate, the creatures lived several weeks, and even months; one, in fact, lived thus for *eighteen months*, this being the only authentic fact of the kind. When, however, the plaster had neither porosity nor crevices, the animals were always found dead and dried up.

At a late meeting of the Academy of Sciences of Paris, the members present had an opportunity of breaking up masses of plaster, in which M. Seguin had imprisoned a viper and a toad in 1852. Both animals were found dead, and evidently dried up for a number of years.—*Lancet.*

CARCINOMA UTERI.—*By Dr. Skinner.*—The two best deodorising agents in carcinoma uteri are Condy's fluid and tar-water, both, of course, used as injections. Of Condy's fluid, an ounce should be taken to a pint of water, and a cupful used as injection thrice daily. For preparing tar-water, the following is the best formula: Tar, lb. j; water, conj. j: mix, stirring with a stick for a quarter of an hour. As soon as the tar has subsided, strain the liquor, and keep it in well-closed jars. Higginson's syringe is invaluable in these cases. A tepid solution of soap and water should be injected first, and immediately afterwards a breakfast-cupful or more of undiluted tar-water. The syringe should have a long vaginal nozzle, that the injection may come in contact with the ulcerated surface.—*Braithw. Retrospect.*

ON HEMORRHAGE FROM THE BOWEL IN CHILDREN AS A SIGN OF POLYPUS IN THE RECTUM.—*By Thomas Bryant, Esq., F. R. C. S., Assistant Surgeon to Guy's Hospital.*—[Polypus of the rectum is usually considered a rare affection; but within the last two years at least twenty examples have fallen under the author's notice. The connexion between hemorrhage from the bowel in children, and polypus of the rectum, is remarkably constant. Mr. Bryant says:]

In the majority of the cases which I have observed, the disease has existed for many months; they have all occurred in children under ten years, and in most the disease has been regarded and treated for piles. In some cases the discharge of blood from the bowel is constant, and its buttocks smeared with a bloody mucus. In these instances the polypus will generally be found to be within, if not protruding from, the sphincter. In other examples, occasional discharges of blood will be observed, although not to any very great extent, and this discharge will generally accompany and follow the act of defacation. In others, again, the hemorrhage will take place independently of any such process. There will generally be some straining after stool, but I have never observed any prolapse of the rectum; and although this disease is troublesome to the child, and of course debilitating, by the repeated, if not constant hemorrhage, when once recognized it is easily treated, and rapidly cured.

The recollection that such a disease is not so uncommon, and that it is always associated with hemorrhage from the bowel, should at once lead the surgeon to examine the part with his finger, when the growth will probably be easily detected. It is generally situated about one or two inches up the bowel, and will be found to vary from the size of a pea to that of a large nut. In some cases more than one will be present; they are always very moveable, and easily slip away from the finger upon anything like pressure; and at times some little difficulty is experienced in fixing them for removal. Such a practice is the only correct statement, being invariably followed by a successful result. It may be done by means of forceps or ligature; and in many cases I have broken the polypus off its attachment by hooking my finger round its pedicle. No bad result has ever followed. The pedicle is always very slender, although it may be an inch or more in length.

The structure of the polypus is very simple, microscopically presenting the ordinary characters of the fibrocellular growths. After removal no subsequent treatment is required, and recovery may confidently be expected; the rectum, however, should be carefully examined, so that a second polypus be not overlooked.

I have thus briefly brought this small but not unimportant subject before the notice of the profession, feeling confident that the existence of polypus of the rectum is not so uncommon as is generally believed, and that such an affection is usually mistaken and treated for piles. In children, the presence of bleeding from the rectum should at once lead the practitioner to suspect the existence of polypus; and, when detected, its removal is the only correct treatment. I have never had an opportunity of seeing a child suffering from piles, and believe that cases so described are generally mistaken, and that, in reality, they are cases of the disease now under consideration.—*Lancet*, Nov. 26, 1859, p. 530.—*North Carolina Journal.*

Rape committed during Magnetic Sleep.—A case of this is recorded in *La Presse Médicale de Marseille.* A girl, 18 years of age, believing herself to be sick, consulted a man who professed to cure diseases by animal magnetism. For some time she went to him daily. After about four months and a half she perceived that she was pregnant, and complained to the police authorities, who consulted Doctors Costa, Director of the School of Medicine, and Broquier, principal Surgeon, to give an opinion: 1. Whether the girl was pregnant, and the period of utero-gestation; and 2. Whether she could be violated and made a mother against her will. These physicians ascertained that the girl was pregnant, and that the utero-gestation had not advanced further than four or four and a half months, and, supported by the report made to the Academy of Medicine by M. Husson, in 1831, concluded since it is demonstrated that a subject under the influence of magnetic sleep is insensible to all tortures, it seems rational to believe that a young girl may submit to coition without voluntary participation in the act, without being conscious of it, and of course without being able to resist.

This opinion is concurred in by M. Devergie, of Paris.—*Gazette Médicale de Paris*, June 16, 1860.

ON IODINE INJECTIONS IN OVARIAN CYSTS.—*By Prof. Scuh.*—The primary action of iodine injections on ovarian cysts is remarkably variable ; and that not only according to the quantity and dilution of the tincture, the amount of the still remaining contents of the cysts, and the peculiarities of the individual, but also according to the condition of the cyst itself as regards its thickness, solidity, its connections with surrounding parts, its surface, and the abundance or scarcity of the supply of vessels—leading to the greater or less stimulation of the cyst, as well as its influence on the nervous system. The peculiarities of the walls of the cyst due to their permeability, and their capability of exosmose and endosmose, cannot be determined beforehand with any exactitude, not only in different patients, but even in the same patient, in a case of repetition of the injections—changes being determined in the texture of the sac which cannot be appreciated. A certain quantity of the tincture, which on the first occasion scarcely exerted any local or general influence whatever, may on a repetition of the injection give rise to the most violent and dangerous symptoms. This is the more extraordinary because the same disparity of effect is not observed in other affections in which the iodine injections are employed, *e. g.* ascites, abscess, thyroid, cysts, enlarged bursæ, etc.

The author has studied the primary effects of injections on fifteen occasions. Sometimes there is no pain or tenderness on pressure; or if the latter exists to some extent, it only lasts for a day or two, the iodine freely passing into the urine from the commencement. Sometimes severe pain is produced at the time of the injection, which persists with exacerbation, or it only first comes on some time after the operation. At the same time a great change in the general condition is noticed—restlessness, vomiting, sleeplessness, faintness, and rapidity of pulse being among the symptoms. In some cases the pulse remains unchanged, but great alteration has taken place in the countenance. In other instances the pulse is very small and feeble, as well as rapid; the extremities are cold, and consciousness is temporarily lost—alarming symptoms that may continue for several hours or a day, and then gradually cease. Not only is iodine found in the urine a few minutes after injection, but likewise in the saliva and in the vomited matters; this iodine reaction being exhibited for from four to twelve days, although the other symptoms have usually terminated earlier. In some cases the primary influence seems to be expended on the cyst and its vicinity, since great pain and tenderness arise, to be followed by shivering and heat, indicating either suppurative inflammation of the cyst, or the development of a dangerous peritonitis. There can be no doubt that the spmptoms of poisoning above mentioned arise chiefly from the rapid passage of the iodine into the blood; but although the nervous system may be principally affected.

through this, its becoming so, so rapidly, in some cases, also indicates a primary action of the iodine upon it.

The *indication for the iodine injection* is the existence of a unilocular globular cyst which has not reached too great a size, having but thin walls, presenting an equal resistance at all points, and containing thin, serous fluid. In order the better to judge of these points, a preliminary puncture of the cyst should always be made, discharging the contents as far as possible. The manner in which this preliminary puncture is borne—*i. e.* with respect to the amount of irritation produced—will give some idea as to the quantity and concentration of the fluid which is hereafter injected. This injection should be proceeded with as soon as the fluid has collected again in sufficient quantity for a puncture to be made without risk of injury to the intestines, it being by no means desirable to wait until the tumor has reäcquired its former volume. When after the preliminary puncture a large mass is still left behind, we may conclude either that the walls of the cyst are thick and vascular, that there are multiple cysts, that there are villous or other pediculated growths from the inner wall, or that the cyst is interwoven with fibrous or other parenchymatous structure. These circumstances diminish greatly the chance of success, or they prohibit the performance of the injection. In some rare cases, indeed, in which two or three cysts have existed, the injection of the largest of these has sufficed for a cure; the iodine, through the operation of the endosmose or exosmose, exerting its influence upon the smaller cysts; or the smaller cysts having become perforated through the larger, the remedy thus gains access to all. But upon such exceptional instances the surgeon cannot count. In very large cysts, by which great traction of the viscera, dyspnœa, etc., have been induced, and in cysts exhibiting irregularities of surface and indurations, which may arise from the aggregation of numerous cysts, or from the presence of fibrous, carcinomatous, or other degenerated masses, the idea of the injection should be entirely abandoned. It would lead to a more rapid growth, or give rise to suppurative inflammation. When the puncture gives issue to the thick, gelatinous fluid, this indicates a condition of the walls of the cysts not easily influenced by iodine. It is very rare for such fluid to become thinner and more serous on subsequent punctures.

The fluid to be injected should amount to from two to six ounces, consisting of tincture of iodine diluted by from one to eight parts of water, adding a scruple of iodide of potassium. As the extent of its stimulating power cannot be always foreseen, it is best, especially on the first occasion, and when the cyst has been nearly emptied, not to employ it too concentrated. The desirableness of preventing access of air during the injection is obvious; and the canula and tube affixed to the syringe are best made of platinum, this being the metal upon which iodine exerts least action. The fluid is not to be allowed to run out again; but should very severe pains follow immediately after the injection some water should be thrown in in order to effect dilution. The stimulation of the cyst by the iodine usually leads to an inflammation which is limited to the walls of the cyst. The serous exudation is increased, and the tumor in a few days reacquires the size it had prior to the operation. After then the size gradually diminishes, and it is a very favorable sign, when with such diminution in size an increase of resistance or an actual induration is perceived. This latter condition is due to coagulation of albuminous matters induced by the iodine, and these are often so thick that a repetition of the puncture at this period gives issue to no fluid, or only a very small quantity. After weeks or even months further changes take place, in virtue of which the coagula disappear, and the contents of the sac again become serous. As long as any diminution in the size of the tumor is observed, however slow in progress this may be, no repetition of the operation should take place; nor should such repetition be put into force as long as any considerable tenderness on pressure remains. It is indicated when the inflammatory condition has been quite transitory, and when the enlargement takes on an increase, or remains completely stationary for longer than six weeks. In some cases the repetition may be necessary from two to six times. When from the entrance of air or other cause, foul suppuration, with extrication of gas, is engendered, and there is tenderness on pressure, fever and loss of strength, a simple puncture should be made and a catheter left in or the aperture enlarged. In all such cases a most careful cleansing of the cavity, by means of repeated injections of water or decoction of bark should be effected. It has been said that by repeated iodine injections the contents of a cyst may be converted from a purulent to a serous fluid; but in this statement the author puts no trust—a similar result never being produced by injection of abscesses.

The statistics of the results of the iodine injection are given very differently by different authors. This seems to have arisen more from the mode in which the cases were chosen, and the degree of exactitude with which they were reported, than from trifling differences in the operative procedure. The author can only speak personally respecting six cases for which fifteen injections were employed. In only one of these did complete recovery take place, and that after a second injection. It was the only one of the six which united all the conditions necessary to secure a favorable issue. In a second case the cyst was bilocular, and a slight diminution of its size only resulted from five injections. The others were multilocular cysts, or the cysts contained a thick, gelatinous fluid—constituting cases which were, according to the author's present conviction, unsuited for iodine injection. In two of them no essential change was produced, and in the others the end of the patient seemed to have been hastened, partly through the speedy repetition of the operation, and partly through suppurative inflammation and peritonitis being induced.—*Zeitschrift der Aerzte zu Wein*, 1859, *No.* 48.

Philadelphia County Medical Society.—(Reported by W. B. Atkinson, M. D., Recording Secretary.)—*Wednesday Evening*, *October* 10.—*Dr. Isaac Remington*, *President.*—Subject for Discussion: Opium as a Therapeutic Agent.

Dr. G. Hamilton opened the discussion by reading the following paper:

The subject for discussion this evening (introductory to which I have been appointed to make some remarks) is "Opium, as a therapeutie agent." Opium, or at least a substance closely resembling it in its effects on the human system, has been known and employed in medicine from the time of Hippocrates, or perhaps still earlier. And it is a singular and somewhat significant fact, that, during the lapse of so many ages, it has, with exceptional periods, continued to maintain, the character of one of the most valuable medicines known to the Healing Art. We shall not perhaps err much in saying, that, at the present moment, its reputation as a curative agent is higher, in the estimation of our profession, than at any former period of its history. I repeat, as a curative agent. For, whilst we are bound to admit that the sagacity of a Sydenham and a Pringle had long ago discovered in opium, qualities not merely palliative, but eminently remedial in their character, it seems to have been reserved to the times of a more enlightened physiological and pathological science to appreciate the real importance of this agent, and to define, measurably at least, the extent and applicability of its powers in the alleviation of suffering, or the prevention and cure of disease.

In regard to the action of this medicinal agent upon the system, and the various effects it is capable of producing, either in the normal or abnormal condition, much diversity and even contrariety of sentiment has always existed. Nor is this to be wondered at. For when it is considered that the primary operation of opium is nearly always, perhaps exclusively, upon the nervous system, the difficulty is easily understood. Even in our own time (notwithstanding the arduous and incessant labors of the physiologist and pathologist, aided as they are, too, by a more advanced physical, chemical and microscopical science), the same difficulties to a great degree exist, and must continue to exist, so long as the normal functions of the nervous system are not more fully comprehended, and, above all, so long as the correlative movements of the three great divisions of this system are so imperfectly defined and understood.

The most generally received opinion, however, at the present time, is, that opium (and *by this term I mean the drug or any of its legitimate preparations*), in a moderate or even large dose, is stimulant in its primary action, especially to the brain, and sedative in its secondary effects. The secondary action may be the result merely of the previous stimulation, or is possibly the more direct effect of some ulterior action inherent to the drug. The former is the more probable, inasmuch as the primary stimulation and the secondary depression are generally in mutual correspondence. When opium is given in an excessive dose, it exercises a directly narcotic influence on the entire nervous system, or if any excitement precedes, it is so short as scarcely to be noticed. Of the different portions of the nervous system, the cerebrum, as before intimated, is that on which opium seems to act with greatest energy ; and the anterior part, where the more prominent of the intellectual and moral faculties are supposed to reside, is thought to be more particularly susceptible to its influence, and hence, as some suppose, the reason of the psychological phenomena and the impairment of the sense of smell and vision sometimes observed.

Be this as it may, conclusive evidence of the stimulant action of opium on the cerebrum is afforded in the daily use of this article by so large a proportion of the inhabitants of the East, and more especially by the followers of Mahomet. To these people opium must be viewed as the mere substitute of vinous and spirituous potations ; and the charm of its operation is to be sought in a peculiar excitement of the brain, sometimes quiet in its character, and attended by sensations of a subdued but highly agreeable kind, or sensuous dreams, or visions of beatitude ; and, in other instances, from excitement of a more active or peculiarly modified character, by an increased sentiment of courage and of high resolve, enabling them to brave death, in whatever shape it may present. Leaving aside, however, evidence of this sort, and directing our attention to that which we find in our own sphere of observation, something like the following may generally be observed after the lapse of about forty minutes in those who have taken a small or moderate dose of opium. A slight sensation of fullness of the head, or throbbing of the temples ; an increased glow of the whole cutaneous surface, terminating nearly always in perspiration ; exaltation of the intellectual, moral, and imaginative sentiments ; serenity of mind or the reverse ; visual perceptions of objects of a strange, uncouth, or frightful character ; sooner or later obliviousness ; and, finally, sleep. From a larger dose there may be tension of the forehead or dizziness, redness and suffusion of the eyes, illusions, both of sight and hearing, confusion of ideas or delirium. To these symptoms, by a further increased dose, are superadded tension of the muscles, producing rigidity of the limbs, or unequal distribution of nerve-power, producing trembling or convulsive movements, insensibility to surrounding objects, loss of consciousness, fixed, immovable features, contraction of the iris, drooping of the eyelids, palor, slowness and feebleness of pulse, sometimes a fullness of the pulse, slow respiration, coolness of surface, and at length congestion so perfect as to simulate very nearly the apoplectic state. These phenomena and others often noticed, clearly indicate with what power opium directs its operation upon the brain, although a part of them are equally dependent upon the spinal and ganglionic systems.

The symptoms just detailed are presented to our observation in the normal condition of the organism in one unaccustomed to the action of opium, and presenting none of those numerous pathological conditions, whose existence so frequently calls for the use of this remedial agent, and modifies to such an extraordinary degree its operation upon the entire or separate divisions of the nervous system. As may be supposed, the different organs and functions of the economy come in for their share of the wide-spread influence of this agent. The digestive organs, in particular, partake of it, and it seems somewhat singular, that whilst the appetite is, as a rule, diminished, thirst is greatly increased. The loss of appetite, in this case, has been attributed to diminished secretion of bile and pancreatic juice, but a more plausible explanation may perhaps be found in a diminished nutrition and consequent depressed state of all the processes depending upon the nerves and centres of organic life. The constipation of bowels, so commonly noticed, may also be properly attributed to the same agency. Nausea and vomiting are of frequent occurrence, and, according to Trousseau and Pidoux, females are annoyed in this way, in the proportion of nearly three to one, as compared with males, thus showing that the more nervous the temperament, the greater the proneness to gastric disturbance. The secretions are in general diminished. So far, however, as the bile is concerned, a reasonable doubt may exist, that any diminution of this secretion occurs, other than the general depressed state of the nutritive functions would render necessary. This condition of the organism may, perhaps, in fact, account for all the changes observed in the secretions, no more of each being furnished than the exigencies of the economy may at the time require. Yet even here, anomalies are found to occur; the secretion of urine, according to the showing of the authors above quoted, being increased in males, after four or five days use of the salts of morphium, in about one-fifth of the whole number of subjects. Perspiration is nearly always increased by a moderate or full dose of opium, and this increased activity of the cutaneous exhalants is generally accompanied by an increased action of the heart and arteries, as is shown in such cases by increased color of the surface of the body. As in ordinary circumstances, so, under the use of opium, an inverse relation obtains between the action of the kidneys and that of the skin, and whilst the kidneys in males, so the skin in females, is found to be as a general rule most active; and hence the more abundant the perspiration in the latter, due perhaps to the greater delicacy of the dermoid tissue. It has been noticed that perspiration, produced by the external application of the salts of morphium to a denuded surface, shows itself first in the vicinity of the part to which it is applied; but the same circumstance, I believe, has been observed in perspiration, occurring, as it often does, from the action of a simple vesicatory. The action of opium is more promptly manifested when applied in the form of one of the salts of morphium to a denuded surface than when received into the stomach; and when injected into the cellular tissue or into the blood vessels is still more decided. When injected into the bowels, its action is likewise soon perceived, and, according to the testimony of most of the French writers, it produces even more powerful effects, used in this way, than when taken into the stomach: in explanation of which they allege it is less exposed to alteration by the juices, and is exempted from the action of the stomach.

Our own experience, on the contrary, as that also of English practitioners, is decided in regard to its diminished power when so employed. Various circumstances pertaining to the individual tend to modify in a marked degree the action of opium upon the system. Other things being equal, the nearer to birth, the more susceptible is the system to its influence. This circumstance has led some writers, of good standing, to doubt the propriety of its employment in the diseases of young children, but, as we think, without sufficient ground. For, as the nervous system is that in which disease or commotion shows itself most frequently in young children, so it is that in which opium displays its most beneficial influence as an anodyne, sedative or remedial agent. Redoubled caution is alone required in these cases. Next, after children, females are most readily affected by opium, and many of them to such a degree, from tts action upon the brain and stomach, as to render them wholly unable to support its operation, even in minute doses. There is reason, however, to believe, that in many seeming cases of this sort, when combined with proper correctives, and employed with great caution and strict regard to the peculiarities of the case, and persevered in, until a full trial has been made, the beneficial effects of the medicine might at length be secured. With opium, as with some other medicinal agents, intolerance of its action, on the part of the stomach or nervous system, will sometimes, after a few trials, give way. In instances of this kind, much will depend on the particular preparation selected, combination, and mode of administration. Excessive pain or cramp, and certain affections of the nerves, whose pathology is not well made out, modify to an extraordinary degree, or even wholly resist the action of opium, as we have evidence of in tetanus.

As regards the particular mode of operation of opium, a great deal might be said, and yet in truth we know but little more than this: that whilst it seems capable of a diminished effect, from direct contact with the nerves, it owes its more powerful influences upon the human organism to absorption into the blood, as is clearly evinced in the fact of the narcotism of children, from imbibing the milk of a mother under the narcotic influence of opium. The system once brought under its action, symptoms either of excitement or depression may appear ; this depending upon the dose, lapse of time after taking it, idiosyncracy, condition of the stomach as to repletion or vacuity, state of the general system, or of some special organ, and many other circumstances, some of these known, and by far the greater part entirely beyond our ability, in the present state of pathology to fully appreciate. A moment's reflection will serve to show the rôle an article of such singular and transcendent powers must perform in therapeutics. As a medicinal agent, opium may, in truth, be said to be without a rival. Nor is it to be wondered that Sydenham should have regarded it as a gift of Heaven for the alleviation of man's sorrows and pains, nor that he should have said of opium, "*ut sine illo manca sit et claudicat medicina*," without it medicine goes hobbling along. If we but reflect upon the extent and variety of the influences of this substance upon the normal condition, we may form some idea of the extent of its applicability to the numerous pathological states to which the economy is constantly exposed. As before intimated, many of these conditions are obscure in their manifestations, and a corresponding doubt and difficulty often besets the path of the practitioner as to the extent of employment or non-employment of this agent so potent for either the weal or woe of his patient.

It is in this point of view especially incumbent on the physician to attend *closely to the various contra-indications*, *and particularly in the case of children.* As a rule, opium is not to be given in fever or inflammation with great arterial excitement and strong determination to the brain, nor in the reverse condition of great venous congestion, the latter being the more dangerous of the two. It is likewise contra-indicated when any known peculiarity of constitution leads us to fear apoplexy. In cough, accompanied with excessive bronchial secretion and great debility of the general powers, such as often exists in persons of advanced age, and in addition feeble pulse, the consequence of organic disease of the heart, its use should, if possible, be avoided. But it is difficult to establish rules in things of this nature, *and they could at best meet but a limited number of the emergencies* constantly arising. The judgment of the practitioner at the necessary moment must be the guide.

Exercising its influence mainly upon the nervous system, opium is found to be especially prompt and useful in its action in the class of diseases and commotions called nervous. No other article of the materia medica is comparable to this in its general power of calming the agitation and removing the malaise so often experienced in disease, nor in its efficacy in allaying exalted sensibility, subduing the severest attacks of pain, and in procuring repose and sleep. Of these various affections, pain is the most difficult to bear, and, fortunately, in a large proportion of cases, it is that which is most amenable to the action of opium. The power of this medicine in allaying the most intense agony may well challenge our admiration and excite our surprise. The character of the pain, its location, and the particular state of the vital functions will enable us to determine the particular preparation to be used, as well as the extent and mode of its employment. The dose necessary in some cases of purely nervous spasm or cramp is very large, yet in such instances it is seldom productive of ill consequences or material inconvenience. When pain is connected with vascular irritation or a degree of inflammation, a more moderate and prolonged use of opium is demanded. Inability to sleep is one of the most common, harrassing, and debilitating conditions we meet in practice. Its causes differ much, some of them arising from transient and obvious reasons, others obscure in their origin, and still others depending upon constitutional proclivity. The first are, of course, most amenable to treatment, and consist chiefly in pain of greater or less degree, and in a certain (to the patient generally indescribable) feeling of malaise, maintaining a general nervous irritation of the whole system. In such cases, opium alone, or combined with antispasmodics, affords the greatest relief. Yet, as such a condition is very often the attendant of fever, either idiopathic or connected with inflammation, close attention should be given to the contra-indications, and the treatment modified accordingly.

(To be Continued.)

TITLES.—A clergyman, hearing that a college classmate, every way his inferior, had been made a Doctor of Divinity, is said to have remarked: "Years ago, when I saw them beginning at the top of the ladder to make doctors, I had no hope that they would get down to me; but now they have begun at the other end, I think, may be, they will get up to me."—*The Century.*

NEW ORLEANS

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CLINICAL LECTURE ON PULMONARY EMPHYSEMA,

DELIVERED AT THE N. O. CHARITY HOSPITAL,

BY AUSTIN FLINT, M. D.,

Prof. of Clinical Medicine and Medical Pathology, in the N. O. School of Medicine.

GENTLEMEN—In my last clinical lecture, I invited your attention to a patient in one of my wards who was suffering greatly from dyspnœa, and who presented considerable lividity of the prolabia and face. These were the most prominent of the symptoms in the case. The respiratory function was seriously compromised. The suffering in consequence was great, and the lividity showed incompleteness of the normal blood-changes which should be wrought by the interchange of certain elements with the atmosphere.

I stated to you that this patient was affected with pulmonary emphysema, and that the case would probably end fatally within a short time. This prognosis has been fulfilled. Death took place day before yesterday. The dyspnœa increased, lividity became more marked, and the patient died from asphyxia and exhaustion combined. The contents of the chest have been removed, and are on the table before me. I shall devote this lecture to some remarks on emphysema in connection with the history of this case, and the morbid appearances presented after death.

The prominent symptoms in this case were embarrassed respiration and lividity. Now these symptoms are not distinctive of emphysema. We could not predicate on them the existence of empysema. These symptoms are present in a variety of affections ; they occur in certain diseases of the heart ; in pneumonia when it extends over a large portion of the lungs ; in acute phthisis ; in pleurisy with large effusion ; in capillary bronchitis, asthma and obstruction of a bronchus. How did we arrive at the conclusion that the symptoms were not incident to any of these affections, but to emphysema ? The history and associated symptoms enabled us to exclude readily some of them. The dyspnœa had existed continuously for too long a period to be consistent with the diagnosis of pneumonia, acute phthisis, capillary bronchitis or asthma. Moreover, other symptoms which we should expect to find in connection with either of these affections, were wanting. Thus, reasoning by way of exclusion, we could readily eliminate these ; but the other affections named were not so readily excluded by the history and symptoms. It was necessary to call to our aid the results of a physical exploration of the chest. Having recourse to these, we were able to exclude without difficulty other of the affections. Disease of the heart, pleuritic effusion, and bronchial obstruction, were eliminated by finding certain signs wanting which should have been present, had these affections existed. In this way, we reached the conclusion that the prominent symptoms in the case were due to emphysema, employing a method of reasoning often extremely serviceable in the discrimination of diseases. But the diagnosis was rendered more complete by the presence of certain physical signs which positively denoted the existence of emphysema, and the examination after death has verified the correctness of the diagnosis.

Let me now direct your attention to the anatomical characters of emphysema, as presented in the lungs before me. But before speaking of these, I will refer you to certain appearances which show that at some period of the life of the patient, not very recent, he was affected with pleurisy. This is a fact of interest, since it is very probable that the attack of pleurisy may have had something to do with the production of the emphysema. In removing the lungs from the chest, they were strongly adherent to the thoracic walls on the left side, and entirely free from adhesion on the right side. You observe that the whole of the left lung is invested with a firm false membrane, which is attached to the visceral pleura by an adventitious structure resembling the areolar tissue. Over the lower part of the lung the false membrane is thick and leathery, and on slitting it up, several ounces of a puruloid liquid escapes. This liquid is exterior to the lung, being situated between the false membrane and the pleura covering the lung. It is the residue of a liquid effusion which was probably large when the patient was affected with pleurisy, before the pleuritic adhesion had taken place. This liquid still separates the false membrane from the visceral pleura in some small spaces. Directing attention to the lungs, you perceive that they are notably voluminous. In a healthy chest, when it is opened, the lungs, if not adherent to the thoracic walls, collapse more or less, leaving a vacant space between them and the walls of the chest. The lung in this case was not collapsed on the right side, in which no adhesions existed. It is now two days since the organs were removed, and still, as you see, their volume is remarkably large. They look as if they had been artificially inflated. This is one of the characters of emphysema, the special anatomical condition consisting in permanent dilatation of the air cells. The lungs were abnormally expanded during life owing to the dilatation of the chest. They remain so after death. The elasticity belonging to these organs in health is so much impaired that the expanded volume continues, notwithstanding they have been handled considerably, and if suspended they would retain much of their present volume until dried. Another of the characters belonging to lungs affected with emphysema is an exsanguine appearance. They appear to be absolutely devoid of blood. Even in the posterior portions, which are usually found to be congested after death, the vessels seem to be empty. This represents, to some extent, a morbid state, existing, as we shall presently see, during life. Another character is a doughy or cushionly feel, which you will find to be well marked in this specimen. Another character is a remarkable dryness of the tissues ; when a section is made no liquid escapes, and very little is squeezed out by pressure. These are the obvious characters of emphysema. On close examination of the cut surfaces, in some specimens, the cells are seen to be enlarged, and sometimes cavities greater or less in size and more or less numerous, are apparent. These are caused by destruction of the cell walls and coalescence of the cells. They are especially conspicuous in dried preparations. I have a beautiful specimen of this description which I obtained in this hospital last winter ; the lungs presenting, on section, an appearance of these organs in the batrachian species of animals. Cavities of large size are occasionally produced by coalescence of the cells. These appearances are not presented in this specimen. The cells seem to be simply and uniformly dilated.

Emphysematous dilatation may be limited or diffused over the whole lungs. In this specimen it extends over the whole of the right lung, but is relatively greater in the anterior and superior portion, as is usually the case. On the left side it extends over the whole upper two-thirds of the lung, and the lower third, instead of being expanded, is contracted. On cutting into this contracted portion, the substance of the lung is found to be condensed. It is carnified, and contains, for the most part, no air. This appearance claims notice as perhaps having a bearing on the production of the emphysema. On making repeated sections into the carnified portion of the lung, I find an oblong, irregular cavity, which appears to be lined with a membrane, from which I scrape a bloody, mucous-like substance. This has not the appearance of a tuberculous cavity. It is probably a dilated bronchial tube. I find no tubercles present anywhere. The bronchial glands are enlarged. Here, at the bifurcation of the trachea, on each side, is an enlarged gland the size of an almond. On cutting into it an abundance of carbonaceous matter is apparent.

Let us observe the condition of the air tubes. Following the trachea to the bronchi, and the sub-divisions of these as far as they can be traced, they present no appearance of contraction or obstruction. The mucous membrane everywhere is covered with a thick layer of mucus.

When this is scraped away the membrane is intact. On the right side the membrane is reddened. The membrane seems to be thickened, but it is consistent, and there are no ulcerations.

The heart has been removed, attached to the lungs by its vessels. It is about the normal size. I open the cavities. The walls are about the normal thickness, and present the appearance of healthy, muscular structure. All the cavities contain some loose, soft, black coagula, and each ventricle contains, also, a colorless clot intertwined with the tendenous cord, and from the left ventricle projecting for several inches into the aorta. These clots suggest remarks which I defer for some other occasion. All the valves of the heart are sound.

Reverting to the condition of the lungs, can we explain the rationale of the prominent symptoms in the case, viz: the dyspnœa and lividity? By reference to this condition, a little attention will, I think, render the connection sufficiently intelligible. The effect of a permanent dilatation of the air cells is an abnormal expansion of the lungs during life, continuing, as we have seen, after death. Owing to the loss of elasticity, the lungs no longer collapse in the absence of a force producing their expansion. What is the effect upon the respiratory movements? The range of the expansion of the chest is diminished. The permanently expanded lung, in the first place, limits the expiratory movements; the chest contracts less with the acts of expiration, and, consequently, the inspiratory movements are restricted. The chest is habitually in the state of an inspiratory act partially performed; or, in other words, the expiratory act is habitually performed incompletely. You see, with a moment's reflection, that in this way the range of the alternate expansion and contraction of the chest in the alternate acts of inspiration and expiration, is diminished in proportion to the extent of the permanent expansion of the lungs. I can illustrate the point which I wish to explain by this pair of bellows. I separate the handles of the bellows as widely as possible, and thereby draw in a certain quantity of air; then I bring the handles as near together as possible, and I expel the air from the bellows. It is true that the comparison is not exact, because the chest is never so completely voided of air as the bellows, but the parallel is sufficient for the illustration. Now, suppose there is some obstacle interposed to prevent the approximation of the handles of the bellows, and the air is consequently expelled in part only, the range of the blowing capacity in the bellows is evidently diminished just in proportion as the expulsive movement is prevented. In an analogous manner the permanent expansion of the lungs in emphysema, by opposing an obstacle to the movements of expiration, restricts the extent of breathing capacity.

How does this compromise the respiratory function? There is no deficiency of air within the cells of the lungs. An over abundance of air, in fact, belongs to the morbid condition. But it is residual or stagnant air which is abundant. The volume of moving or tidal air, in the acts of inspiration and expiration, falls below the quantity required for the function of respiration. The respiratory function is dependent on a sufficient quantity of moving air. This being inadequate, the blood fails to receive from the air inspired a sufficient quantity of oxygen, and the expired current fails to carry away from the blood a sufficient quantity of carbonic acid gas. Hence the interchange of these elements between the blood and the atmosphere is incomplete. Dyspnœa and lividity are incidental to the imperfect accomplishment of the respiratory function. The patient feels a painful sense of the want of fresh supplies of air. This constitutes the symptom called dyspnœa. Impelled by this suffering from the want of air, he instinctively employs laborious efforts to obtain it. Hence are called into play all the muscles which enlarge the capacity of the chest in the act of inspiration, and which compress the lungs by contraction of the chest in the act of expiration. But if emphysema exist to such an extent that the most laborious efforts of breathing are insufficient to satisfy the objects of respiration, not only does the dyspnœa continue, but the imperfection of the blood changes which should be wrought by the respiratory function, are manifested by lividity in parts where the vermillion hue of arterial blood is conspicuous in health, viz: The prolabia, the mucous membrane within the mouth, and, to some extent, the cutaneous surface, especially on the face.

There is another mode in which emphysema compromises the respiratory function, viz: By impeding the circulation of blood through the lungs. I have pointed out the exsanguine appearance in the specimen on the table. For the same reason that the lungs are exsanguine after death, the blood is deficient in these organs during life. The air in the dilated cells compresses the capillary terminations of the pulmonic artery, and in this way obstructs the passage of blood through the pulmonic circuit. The function of respiration, therefore, suffers from the want of a sufficient supply of blood to the lungs, as well as from the want of a sufficient supply of fresh air. This obstruction to the circulation through the lungs necessarily leads to an accumulation of blood in the right cavities of the heart, and to stagnation in the systemic veins and capillaries. The lividity is partly attributable to this stagnation as well as in part to deficient oxygenation of the blood. As a result of an accumulation of blood in the right cavities of the heart, they become distended and enlarged, and ulterior effects which may occur are cardiac hypertrophy and dilatation.

If the anatomical condition which constitutes emphysema be understood, together with the mode in which it compromises respiration and interferes with the circulation, the symptomatology of the affection will be sufficiently intelligible. The signs obtained by the physical exploration of the chest are also understood without difficulty. I do not propose to enter into a consideration of these at this time. I shall consider them in connection with other cases of emphysema which will come under our observation during the winter. I will simply say that you have only to keep before the mind's eye the permanent expansion of the lungs as you now see them, to understand that, when situated within the chest, the latter will be enlarged in proportion to the increased volume of the pulmonary organs; that the normal oblique direction of the ribs will be diminished in proportion as the thoracic walls are elevated and expanded, and the direction will approximate to a horizontal line; that the costal movements will be less than occurs in labored breathing in health; that, inasmuch as there is no deficiency of air in the air cells, the chest will be sonorous on percussion, and that, since the range of movements of the lungs and chest is diminished, the respiratory sound obtained by auscultation will be weakened. There are certain modifications of the form of the chest, of its motions, of the percussion note, and of the rhythm of the respiratory murmur, which constitute positive physical signs of this affection. These, I shall point out to you on other occasions.

I will now give from my Hospital Book a condensed account of the previous history of the case which has served as a text for this lecture, together with the symptoms and physical signs. I shall not stop to offer any comments, but I shall afterward devote the remainder of the lecture to some remarks on the pathology and treatment of emphysema.

The patient, a laborer, aged 36, was admitted into the hospital fifteen days before his death. He had been in the hospital eleven days when my term of service commenced. He stated that he was well and strong up to two years ago. He then began to notice deficiency of breath on active exercise. About the same time, (he was not certain whether shortly before or after) he began to cough and expectorate. The deficiency of breath, cough, and expectoration progressively increased, but he kept at work until August last, when he was obliged to give up. He did not take to the bed till he entered the hospital. When he entered he was greatly prostrated. The lower extremities were œdematous. The dyspnœa was urgent. He was treated, before he came under my charge, with the syrup of morphia, brandy, good diet, and occasionally the brown mixture. His condition became, in some respects, improved. The œdema of the lower extremities disappeared. He seemed less prostrated.

When I took charge of the patient, the cough was frequent and spasmodic, and he expectorated abundantly muco-purulent matter. The breathing was greatly labored, the inspirations spasmodic, the respirations numbering 36. The face and lips were tumid. The prolabia and tongue were livid, and the face also presented a livid hue.

The appetite was good and the bowels regular. The pulse was 120. The surface was cool. The dyspnœa did not prevent him from lying down, and he preferred to lie on the left side.

On physical examination of the chest, the ribs and sternum were raised in inspiration, as if they formed one piece. The larynx descended in each inspiration. The chest presented at its upper part a barrel shape. The lower part was contracted in inspiration. The obliquity of the ribs was diminished. The percussion sound was everywhere clear. The resonance extended over the præcordia. The sonorousness was not great, but the chest was pretty thickly covered with muscle. The respiratory murmur in front, on the left side, was extremely weak. The inspiratory sound was notably deferred. On the right side, the respiratory murmur was less weak, the expiratory sound prolonged and lower in pitch than the inspiratory. Behind, the murmur was scarcely perceived on the left side, and was feeble on the right side. Sibilant râles were frequent on both sides, and, here and there, mucous râles. The apex-beat of the heart was not discoverable. An obscure impulse was felt in the epigastrium just below and to the left of the ensiform cartilage. The heart sounds were scarcely audible in the præcordia, either at the situation of the base or apex. Both sounds were heard in the epigastrium, the second sound being louder than the first. No cardiac murmur was discovered.

The urine was not albuminous, and I may state in this connection, that the kidneys after death presented a normal appearance.

My treatment consisted of the chlorate of potassa, half an ounce daily, the syrup of morphia *pro re nata*, brandy three ounces three times daily, and good diet.

The labor of breathing and the suffering from the want of breath continued. The lividity increased, and death took place on the fourth day after the patient came under my charge.

The subject of emphysema, gentlemen, is far too extensive to be treated of fully in a single discourse. I have not even alluded to many points, of scientific interest, and also practically important, which pertain to the morbid anatomy, the laws of the disease, and the clinical history, as well as to the physical signs and diagnosis. But, I wish, in this lecture, to say a few words respecting the pathology, or more properly the pathogenesis or mode of production, since emphysema is probably to be considered as a lesion incident to other affections, rather than in itself a substantive disease.

The essential anatomical condition we have seen to be dilatation of the air cells. Now, what causes this dilatation? What is the mechanism of its production? These questions are open for discussion. They have not been conclusively answered. In the place of settled answers we have discrepant theories. This is perhaps not surprising, when it is considered that the anatomical condition was first ascertained and described by Laennec, within the last half century. Laennec offered an explanation of the manner in which the cells become permanently dilated, and pathologists have generally accepted his explanation, although it will hardly bear criticism. Recent microscopical researches by Mr. Rainey, of London, appeared to show that fatty degeneration of the cell walls, preceding the dilatation, leads to it by impairing the elasticity of the organs, and sometimes causing destruction of more or less of the walls and coalesence of the cells. Still more recently, Dr. Gairdner, of Edinburg, has submitted a theory, which to say the last, is extremely ingenious and plausible. I will endeavor to give very briefly the theory of Laennec and that of Dr. Gairdner, but without discussing either, which would occupy too much time. My object is simply to place before you theoretic views with respect to which opinions are divided, in order that you may, if you choose, bring to bear upon them your own powers of reasoning and investigation. Here is one among the multitude of subjects of pathological inquiry which remain to be cleared up to the satisfaction of all minds.

There is one fact to be premised which undoubtedly has an important bearing on the genesis of emphysema. In the vast majority of cases, the lesion is preceded and accompanied by chronic bronchitis. The [exceptions to this rule, if any exist, are extremely rare. So commonly associated as are these two affections, it is fair to conclude that they are in some way pathologically connected, and as the bronchitis generally, if not uniformly, precedes the emphysema, it is probable that the former is involved in the development of the latter. Laennec observed this connection, and accounted for the dilatation of the cells by supposing that certain of the smaller bronchial tubes becoming obstructed by tenacious, thick mucus, an accumulation of air, and thereby distension, occurs in the air cells connected with the obstructed tubes. Regarding the act of inspiration as more powerful than the act of expiration, he thought that air was forced into the cells behind the obstruction by the former act, and that the latter act was unable to expel it. I have said that the theory of Laennec will hardly bear criticism. The expiratory act in forced breathing is much more powerful than the act of inspiration; hence, it is not reasonable to suppose that air will pass by a bronchial obstruction in inspiration and not in expiration, but precisely the reverse would be expected to take place. Moreover, with regard to the obstruction of the tubes by plugs of mucus, when we consider that the tubes form a series of branching cylinders constantly diminishing in calibre, the effect of the expiratory acts in breathing and coughing must be to promote the passage of the plugs onward from the smaller to the larger tubes, and therefore, the obstruction would be likely to be less to the current of air from the cells than to the current into the cells.

Dr. Gairdner regards the dilatation of the cells as due to obstruction of the bronchial tubes. But he refers the seat of the lesion to cells connected with unobstructed bronchial tubes, not to those situated behind the obstruction. He supposes that, as an immediate effect of obstruction from mucus impacted in the smaller tubes, collapse, more or less, of the pulmonary lobules is liable to take place; an effect precisely the reverse of that which Laennec imagined. The air in expiration and in the violent expiratory efforts in coughing, according to Dr. Gairdner's theory, passes by the obstructing mucus; and this obstructing mucus, moved from the smaller to the larger tubes by the expiratory current in breathing and coughing, is again drawn backward into the smaller tubes by the inspiratory current of air, and thus operates like a ball valve preventing the entrance of air into the cells. In this way collapse occurs of lobules in immediate relation to the obstructed tubes. I shall have occasion, in treating of other subjects, to refer to the occurrence of collapse as thus explained, irrespective of its occurence antecedently to emphysema. We shall see that the so called lobular pneumonia of children is, in fact, not a form of pneumonia, but bronchitis with collapsed lobules. But not to digress from our present subject, how, you will ask, does collapse of more or less of the lobules of the lungs give rise to emphysema? The volume of breathing capacity of the lungs being diminished in proportion to the number of collapsed lobules, the non-collapsed portions are dilated by the augmented inspiratory movements, or in other words, by atmospherical pressure. The enlarged volume is thus supplementary to the loss of portions of the lung structure as regards the respiratory function. Dr. Gairdner sustains his theory, not only by reasoning, but by facts obtained by direct observation. I cannot, however, do more than merely present his theory. You will find his views enunciated and advocated by himself in a paper contained in the British and Foreign Medico-Chirurgical Review for April, 1853. I refer you to this paper, as his small treatise on the subject has not been republished in this country. I would advise you to read the article referred to, which you will find extremely interesting. I am not prepared to say that I believe Dr. Gairdner's theory to be fully adequate to account for the production of emphysema, but, if called upon to decide between it and the theory of Laennec, I could not hesitate to give it the preference.

With respect to Mr. Rainey's researches, Dr. Gairdner denies that the air cells in emphysem a present, under the microscope, a greater abundance of fatty granules than are often found when the cells are not dilated. This is a point to be settled by further researches. If the cell walls do become attenuated and to a greater or less extent destroyed by fatty degeneration, as claimed by Mr.

Rainey, or by any other morbid process, this must be considered as having an important bearing on the development of the affection under consideration.

An interesting point of inquiry connected with the subject of the development of emphysema, is its relationship to asthma. The latter affection will claim distinct consideration in my clinical course, as illustrative cases in the hospital come under our observation. A confusion appears to exist in the minds of many with respect to the two affections, asthma and emphysema. The author of a late work on diseases of the chest, speaks of them as one and the same affection, and calls an attack of asthma a paroxysm of emphysema. The two affections are generally associated, but they are by no means always associated. In the case which has suggested this lecture, the emphysema existed independently of asthma. On the other hand, I have repeatedly met with cases of asthma without any of the signs of emphysema, but sooner or later, it is true that the latter affection usually, if not always, becomes developed. The affections are quite different in their pathological character. Asthma is a spasmodic affection of the muscular fibres, entering into the composition of the smaller bronchial tubes. Spasm of these muscular fibres contracts the tubes and obstructs the passage of air into and from the air cells. It is a curious fact that these muscular fibres appear to be insusceptible to spasmodic action in most persons, and are peculiarly susceptible in certain persons. The latter are alone capable of becoming afflicted with asthma. It is a still more curious fact that some persons are so constituted that spasm of these muscular fibres is occasioned by the introduction, with the atmospheric air, of substances which to most persons are perfectly innocuous. Thus, we find persons who, from an idiosyncracy pertaining to the bronchial tubes, suffer from asthma when they inhale emanations from feathers, powdered ipecacuanha, and other substances. Like other spasmodic affections, asthma is essentially paroxysmal. It occurs in paroxysms which are more or less frequent in their recurrence and have a variable duration, sometimes only arising when produced by some obvious local exciting cause. Emphysema, on the other hand, is a lesion, viz : permanent dilation of the air cells ; and, as we have stated, it may or may not be associated with asthma.

The frequent coöxistence of these two affections, however, renders it altogether probable that there does exist between them some bond of relationship. What is the nature of the connection ? I believe that the link which binds them together is chronic bronchitis extending to smaller tubes than are involved in ordinary cases of inflammation of the bronchial mucous membrane, but, of course, not affecting the minute tubes to an extent to constitute the disease called capillary bronchitis. In persons subject to asthma, a paroxysm is generally incident to an attack of bronchitis ; or, if the latter be habitual, either to an increase of the bronchial inflammation or its extension to smaller tubes. It is extremely rare for asthma to occur without bronchitis, although cases of what has been distinguished as pure nervous asthma are occasionally met with. In such cases, very rarely, if ever, is asthma associated with emphysema. Bronchitis affecting the smaller tubes in a person who has an asthmatic diathesis, develops the susceptibility to the spasmodic action which constitutes asthma ; the same bronchitis becoming chronic, is likely to lead, sooner or later, to emphysema. The asthma *per se* does not give rise to emphysema, nor does the emphysema give rise to asthma, but the bronchitis stands to each in a causative relation.

I have but little time left for remarks on the treatment of emphysema, but I can embrace all that I wish to say now under this head in a few words.

The lesion which constitutes the affection is generally regarded as irremediable, and, hence, it is only hoped by judicious treatment to prevent or retard its progress. We cannot, indeed, expect to effect a cure, but an amount of improvement sometimes takes place which shows that there is an approximation to a cure. In a case which was under my observation, some years ago, the affection existed to such a degree that the characteristic deformity of the chest was marked ; this patient has so far recovered that he suffers comparatively little, and the deformity of the chest is nearly gone. We should not despair in all cases of placing patients in a far better condition than that in which we find them when they come to us for treatment.

The great object of treatment is to relieve, and, if possible, to cure the bronchitis, which, as we have seen, stands to the emphysema in the relation of causation. The good which we shall be able to do, will be commensurate with our success in treating the associated bronchitis. Now, with reference to this object, different remedies will be suited to different cases. But I have found two remedies to possess, in certain cases, a remarkable efficacy. I shall content myself with suggesting these, and, in fact, they are the only remedies of the efficacy of which I can say much from my own experience. One of these remedies, and I am inclined to think the more efficient of the two, is the iodide of potassium. In the case just alluded to, in which the improvement was so remarkable, it was manifestly effected by means of this remedy. The patient took it in doses of five grains three times daily until he was so much benefited that he ceased to come and report his condition; but finding that when the remedy was suspended, the bronchitis and want of breath returned, he continued to take it of his own accord, with but little intermission, for a year. This was several years ago, and, in the meantime, he has had tolerable health, but he finds it necessary, as he recently informed me, from time to time to resort to the remedy on which his experience has taught him to rely confidently for relief. I have known marked relief in other instances, but you must not expect great results in all cases, and sometimes it will fail to afford any benefit. There are some persons, by the way, who cannot take this remedy. I have known it repeatedly to produce a pustular eruption on the skin; but this is only a trivial inconvenience. It sometimes occasions an intolerable dryness and disagreeable sensation in the fauces, and in a patient who was long under my observation, it produced the effects of an acid poison, exciting severe and protracted vomiting.

The other remedy is the chlorate of potassa. I have prescribed this remedy repeatedly in cases of emphysema during the last two or three years, and in several instances it has proved highly useful by relieving the associated bronchitis. Its usefulness was strikingly apparent in a case under observation in my wards in this hospital winter before last. I prescribed this remedy in the case which has just terminated, but, from the patient's condition, I did not expect real benefit from this or any remedy. From two to four drachms of the chlorate of potassa may be given during the twenty-four hours. Perhaps a larger quantity may be borne, but I have never exceeded half an ounce.

It is very probable that other remedies may be as useful in certain cases as the two which I have mentioned. Other remedies, perhaps, may be efficacious in cases in which these fail to prove beneficial. I repeat that I mention these only because I cannot advocate other remedies from my own experience.

The importance of early treatment in cases of emphysema is very great. There is reason to believe that, judiciously treated before much progress has made in the dilatation of the air cells, it may, to say the least, be often kept within bounds compatible with comfortable health. With reference to early treatment, the diagnosis is important. And in order to make the diagnosis, the practitioner must be competent to avail himself of the information to be obtained by physical exploration of the chest. Owing to the too common neglect of auscultation and percussion, the affection is often not ascertained at a period when judicious treatment would be immensely important to the patient. In fact, it is not uncommon for emphysema to be confounded with other affections even when it has advanced to such an extent that nothing can be plainer than the physical signs which denote its existence. With the aid of physical exploration, the diagnosis rarely presents much difficulty, as I hope to show you on other occasions.

I would remark, in conclusion, that in treating of the subject in this lecture, I have had reference exclusively to the common form of pulmonary emphysema, sometimes distinguished as true or vesicular emphysema. A rare variety known by the name of interlobular emphysema, differs in its seat and pathological character. In this variety, air is extravasated into the areolar or connective tissue uniting together the lobules and the viscera pleura to the pulmonary organs. This variety is, in fact, identical with ordinary emphysema of the subcutaneous areolar structure, to which it may give rise, the air finding its way along the roots of the lungs and diffusing itself more or less over the body. It would be an improvement in nomenclature if the term emphysema could be limited to this variety, and the common form, true or vesicular emphysema, were to receive some other title. It is sometimes called rarefaction of the lungs. A simpler and better denomination is dilatation of the air cells, which expresses the special lesion constituting the affection.

A COURSE OF PRACTICAL LECTURES

ON URINE, URINARY DEPOSITS, AND ON THE RELATIONS OF MORBID URINE TO CONSTITUTIONAL DISEASE:

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LECTURE I.—INTRODUCTORY—*Continued from Page* 684.

Having noted the quantity of urine passed in the 24 hours, the next thing we do is to observe the amount of solid matter contained in it. The water of the urine although by far the largest constituent, must be regarded simply as the vehicle for holding its other elements in solution, and to the quality and quantity of these must we look for the true composition of the liquid. The only means by which the absolute quantity of the solids in a given amount of urine can be ascertained with strict exactness, is by the evaporation of the water. This, simple as it seems, is a matter of extreme difficulty, as some of the constituents, especially urea, are exceedingly prone to decomposition by heat, and by being thus converted into carbonate of ammonia are dissipated and lost. Again, towards the close of the operation, the water is held with great tenacity by some of the constituents of the urine, and it is almost impossible to drive it off entirely without the loss of some of the more volatile solids.

The only means by which evaporation can be carried on to dryness, without loss, is under the receiver of an air pump. By placing the urine in a large shallow dish, supported over a vessel containing concentrated sulphuric acid, and producing a rapid vacuum, the aqueous portion of the urine will rise in vapor and be absorbed by the acid. The vessel with its contained urine, should have been previously weighed, and on being weighed when dry, the difference will give the amount of water lost; by subtracting the weight of the empty vessel, from what it had when containing the dry residue, we get the absolute amount of solid matter contained in the specimen of urine under examination. This process, although absolutely accurate, is very troublesome, and consumes a very large amount of time, and we may turn to the quicker process of evaporating the urine over a water bath at a temperature of 212 deg. F. The water bath I show you is, as you see, a very simple affair, consisting of a semi-globe of copper, with rings adapted to receive various sized evaporating dishes. Anything will do for this purpose—an old saucepan, or a larger sized porcelain capsule, will answer just as well as the most elaborate contrivance. You will, however, find this a very tedious and disagreeable process; the fumes are, as you can perceive, of anything but an agreeable odor, and it is difficult even with the utmost care to avoid the loss of urea.

It will be obvious to you that either of these processes is inapplicable at the bed side, and even in the laboratory would occupy too long a period to allow of an extended series of observations. Fortunately, we possess a means, which although not strictly accurate, is still sufficiently so to be applicable to clinical observation, and in all cases affords very good average results. We may estimate the amount of solids in any given liquid by taking its density or specific gravity. The instrument I hold in my hand is called an urinometer, and you observe that when I drop it into this vessel of pure water it sinks nearly to the bottom of the glass, and now immersing it in this vessel of urine it remains suspended in the middle of the liquid. By observing it more closely you will notice that the stem is graduated from 0 to 60, and that when immersed in water it sank to 0. We may define the specific gravity of a substance to be the ratio of its weight to that of an equal volume of pure water at 60 deg. F., the density of which is called 1000. A body immersed in a fluid displaces exactly its own bulk of it, and which quantity having been supported by the fluid around, the body is held up with a force exactly equal to the weight of the fluid displaced, and must sink or swim as its own weight is greater or less than this. It follows, therefore, that the urinometer will not sink so deeply in a heavy liquid as in a light one, and as the density of liquids depends more frequently upon the amount of solids they hold in solution, the gravometer or urinometer becomes, as it were, a very reliable balance, and affords tolerably accurate information as to the amount of solid material they contain.

The average density of the urine is usually set down in books at 1020, but much will depend upon the habits of the people. When a large amount of animal food is used the urine is richer in solid constituents than where a poorer diet is employed ; thus in France I find Becquerel sets the average density of the urine at 1017, this lower specific gravity being due to the habits of the people, who live chiefly on a comparatively vegetable diet, and use a large quantity of weak acidulous wines. In this section of the United States, where the great bulk of the people are well fed, and where the high temperative heat only induces a concentration of the urine, I find the average density about 1022, which I think you may assume as a fair standard. A degree or two more or less would be perfectly compatible with the limits of health, and you will bear in mind that I am constantly referring to the average of the twenty-four hours. The importance of observing the density of the urine cannot be overstated, as by examining it the existence of many diseases may be suspected, which otherwise may pass unnoticed. Thus you may observe that a person apparently in fair health habitually passes a urine of a specific gravity of 1015 or less, and you may safely suspect the presence of albumen, for which, of course, you instantly search. Another individual may constantly make urine of a high density, say 1030 or 1040, and you fear the presence of sugar, for which you at once proceed to search. Not finding sugar you may be certain of the existence of an excess of urea, which may be pathological. You thus see that by the simple process of placing the urinometer in the urine three diseases may be suspected, and their existence may be diagnosed at a stage earlier than they manifest themselves by any severe morbid process ; and being thus recognized at an early stage they may be arrested and cured. I think it should be a rule with you to examine the density of the urine in every case submitted to your care. In order however to render the indications of the urinometer more exact we must examine at the same time the temperature of the fluid in which it is immersed, as the volumes of all fluids are increased by an increase of temperature. Ordinary urinometers are calculated for a temperature of 60 deg. Fahr. The following table has been computed for their correction by Mr. Ackland, of London, up to a temperature of 85 deg.

***A TABLE for reducing the indications of a Glass Urinometer to the standard temperature (* 60° *Fahr.) when the specific gravity has been taken at a higher temperature.*

Temperature.	No. to be added to the indication.	Temperature.	No. to be added to the indication.
60°	.00	73°	1.20
61	.08	74	1.30
62	.16	75	1.40
63	.24	76	1.50
64	.32	77	1.60
65	.40	78	1.70
66	.50	79	1.80
67	.60	80	1.90
68	.70	81	2.00
69	.80	82	2.10
70	.90	83	2 20
71	1.00	84	2.30
72	1.11	85	2.40

EXAMPLE.—Suppose the urinometer to float in urine of 73° temperature, at 21. on referring to the table opposite 73° you will find 1.20 which is to be added to the indication 21, making the true specific gravity 1022.2

As our object in taking the density of the urine is to ascertain the amount of solids it contains, various means have been devised to conduce to this end. The method which gives results which must approximate to the truth is the one which was proposed by Dr. Christison, which consists in multiplying the last two figures of the density by 2.33, which will give us the amount of solids in 1000 grains of urine. Thus, this specimen of urine on the table has, I find, a specific gravity of 1.030. I multiply the last two figures, 30, by 2.33, and from this I find that every thousand grains of this urine contain 69.90 grains of solid matter.

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*Golden Bird on Urinary Deposits, page 46.

We are indebted to Dr. Golding Bird for the following table, which calculated from Dr. Christison's formula, gives us at once the quantity of solids in 1000 grains of urine of different densities:

TABLE I.—Amount of solids in 1000 *grains of urine at different densities.*

Specific gravity.	Solids.	Specific gravity.	Solids.
1001	2.33	1021	48.93
1002	4.66	1022	51 26
1003	6.99	1023	53.59
1004	9.32	1024	55.92
1005	11.65	1025	58.25
1006	13.98	1026	60.58
1007	16.31	1027	62.91
1008	18.64	1028	65.24
1009	20.97	1029	67.57
1010	23.30	1030	69 90
1011	25.63	1031	72.23
1012	27.96	1032	74.56
1013	30.29	1033	76.89
1014	32.62	1034	79.22
1015	34.95	1035	81.55
1016	37.23	1036	83.88
1017	39.61	1037	86.21
1018	41.94	1038	88.54
1019	44.27	1039	93.87
1020	46.60	1040	93.20

By referring to this table we at once ascertain the amount of solids passed in the urine; thus, if the density of the specimen examined be 1020, we observe by referring to the table, that in every 1000 grains of such urine there must be 46.60 grains of solids; and then by weighing the entire amount of urine passed in twenty-four hours, and multiplying this by 46.60, we get the entire quantity of solids excreted in that period.

As, however, it is much more convenient to obtain the measure than the weight of urine, Dr. Bird has also calculated a table by which we can ascertain the weight of the urine in grains, from its bulk. A pint of distilled water weighs 8750 grains.

TABLE II.—Weight of one pint of urine at various densities.

Specific gravity.	Wt. of one pt. Grains.	Specific gravity.	Wt. of one pt. Grains.
1010	8837	1023	8951
1011	8346	1024	8960
1012	8855	1025	8968
1013	8863	1026	8977
1014	8872	1027	8986
1015	8881	1028	8995
1016	8890	1029	9003
1017	8898	1030	9012
1018	8907	1031	9021
1019	8916	1032	9030
1020	8925	1033	9038
1021	8933	1034	9047
1022	8942	1035	9056

You will see by this example how the table is to be used. Supposing a person passes in 24 hours 2½ pints of urine, of the specific gravity of 1.020, how much solid matter does this contain? By referring to Table I, you see that 1000 grains of urine of this density contain 46.6 grains of solids; by Table II you learn that a pint of such urine weighs 8925 grains; then by multiplying 8925 by 46.6 and dividing the product by 1000 we get 415.9 grains of solids in one pint, and by multiplying this by 2½ we obtain 1039.72 grains, being the total quantity of solids present in the urine of 24 hours.

Another and a much more simple plan is one also indicated by Dr. Golding Bird. He found from an extended series of observations, that there was a singular coincidence between the last two figures of the density and the quantity of solids in the urine. These last two figures giving within a fraction the amount of solids in grains contained in an ounce of the urine. Thus: supposing a patient passes 40 ounces of urine of the density 1.020, each fluid ounce will contain 20 grains of solids; this multiplied by the entire quantity gives the amount of solids passed in the twenty-four hours. It must not however be imagined that this method is rigidly exact. In fact it is less correct than the formula of Dr. Christison, but it is sufficiently accurate to answer the purposes of clinical examination, where an approximative estimate made daily is far better than a rigid analysis made at long intervals of time. It must be recollected that the only means by which strict accuracy can be obtained is by the process of evaporation in vacuo, which as you know would be utterly impossible at the bedside, where the examination of this secretion is much needed.

The quantity of solid matters excreted by the kidneys has been variously estimated by different authors, but I think you may set down the average weight excreted by a healthy adult man as varying from 700 to 900 grains in the twenty-four hours, and an increase of 200 grains may fairly be allowed as compatible with health. In many forms of disease, where little food is taken, the amount of solids in the urine is made up almost entirely by the destruction of the tissues of the body, on which we may infer the patient lives, and it is owing chiefly to this that emaciation is the constant result of sickness. Where the urinometer shows a constant low specific gravity, indicating a persistent decrease of the amount of solids below the average, we may assume that the vital powers of the patient are decaying, effete matters are accumulating and a very guarded prognosis should be given.

You may think I have been somewhat diffuse on the apparently simple subject of the density of the urine, but my object in these lectures is to make you thorougly comprehend the subject treated, and I conceive that true brevity consists not in compressing ideas into a small space, but in conveying them in such a manner as to allow of their most thorough and ready comprehension. In my next lecture I will take into consideration the color, consistence and reäctions of the urine.

BI-ANNUAL REPORT

OF THE ORTHOPÆDIC INSTITUTION AND INFIRMARY FOR SURGICAL DISEASES IN GENERAL, OF DRS. S. CHOPPIN AND M. SCHUPPERT,

BY M. SCHUPPERT.

Hernia.—Operation for radical cure of inguinal hernia, performed 41 times, after the method of Wützer and Wood, with modifications, by S. Choppin—21 times on the right side and 20 times on the left side. Two deaths—one from pyaemia, one from tetanus.

Strangulated Hernia, one case. Operation three days after the strangulation of the bowel had taken place. Patient entered the infirmary in a state of prostration, and died of nervous exhaustion, 18 hours after the operation had been performed. The greater portion of the ascending colon was incarcerated, containing a considerable quantity of hard fecal matter. Neither the bowel nor the peritoneum were found in a state of inflammation. Endeavors had been made, during two days, to reduce the bowel. There can be no doubt that this man died a victim of the unscrupulous defenders and cultivators of that bloodless operation, called "taxis."

Vesico-Vaginal Fistula, 11 cases; 9 cases cured by 13 successful operations, by M. Schuppert. Some of the cases, the history of which will be given in a later number of the *Gazette*, and who, at the first glance, were considered beyond the hope of a cure, being of an immense size, associated with an obliteration of the urethra and of total eversion of the bladder, had to be closed by two operations. Amongst the cases enumerated, is one in which the vagina has been entirely closed. In all my operations, I have used the interrupted silver suture with a silver button, after the method of Bozeman. One case died of pyæmia ; another is still on hand.

Stricture of Urethra, 6 cases ; 4 associated with fistulous openings. Urethro-plastic operation once ; Syme's operation performed twice, by S. Choppin and M. Schuppert.

Fistula in Ano, 3 cases ; in one resection of os coccygis. Operation performed by Choppin and Schuppert.

Plastic Operations on the Face.—3 cases of harelip, one associated with cleft palate ; 1 case of restoration of lower eyelid ; 1 case of restoration of left ala nasi, by Choppin and Schuppert.

Clubfoot, 6 cases : 5 fully restored to proper form, by M. Schuppert.

1. *Talipes varo equinus.* Congenital, 19 years' standing, by dividing tendo Achillis, tibial. postic., and plantar fascia.

2. *Talipes equino-varus.*—Congenital, of both feet ; child 8 weeks old ; dividing tendo Achillis and tib. posticus.

3. *Talipes varus.*—Congenital, of one foot ; child, 4 weeks old ; division of tibial. posticus.

4. *Talipes equino varus.*—Congenital, of one foot ; child, 8 weeks old ; division of tendo Achillis and tib. posticus.

5. *Talipes equino varus paralyticus*, of both feet, of 9 years' standing, complicated with dislocation of tarsus. This case, although the feet have entirely recovered their proper form, is still under treatment.

6. Case, *pes equinus*, congenital, 23 years' standing, cured by dividing tendo Achillis, and using proper apparatus, by S. Choppin.

Aneurism, 5 cases ; one of the axillary artery, one of a femoral, two of popliteal, one of posterior tibial.

Ligatures on Arteries.—Ligature on temporal artery, for a wound in the scalp, by M. Schuppert.

Ligature on Subclavian Artery, left side, for a laceration of axillary artery by a shot, performed by M. Schuppert.

Ligature on Subclavian Artery, on the right side, for an aneurism of axillary artery. Death 4 days after the operation, from pyæmia. Operation performed by M. Schuppert.

Ligature on Common Iliac Artery, by M. Schuppert. The case was one in which the femoral artery had been tied, 8 days before, on account of an aneurism of the same artery. The coats had given way in the place of the ligature, and the external iliac, when exposed to the sight, was also found to be diseased. Death 12 hours after the operation.

Ligature on Femoral Artery, for a traumatic aneurism of the same artery, performed by S. Choppin.

Ligature on Femoral Artery, for an aneurism of the popliteal ; 2 cases ; both performed by M. Schuppert. In both cases, compression had a fair trial, but failed to accomplish a cure.

Ligature on Posterior Tibial Artery, for an aneurism of the same artery, caused by a shot ; performed by S. Choppin.

Ligature on Radial and Ulnar Artery ; 2 cases. In both for a wound of the palmar arch ; performed by M. Schuppert.

Resection and Amputation.—The following were executed by S. Choppin: Resection of upper maxillary bone, for epulis; resection of the whole radius, for necrosis; resection of a portion of a rib, for caries; resection of portions of tibia, 2 cases, for necrosis; resection of portions of both humeri, for necrosis; amputation of finger, one case.

The following resections, performed by M. Schuppert: Resection of upper maxillary bone, partial; resection of of lower maxillary bone, partial; 2 cases, one for necrosis, the other for a cartilaginous tumor; resection of metatarsal bone of first toe, for caries; amputation of one finger.

Excision of Supra-orbital Nerve, for neuralgia, of 14 years' standing, occurring every other 14 days, by M. Schuppert.

Excision of Tongue, partial, for epithelial cancer, with the ecraseur, by S. Choppin.

Tumors, Extirpation of:

Lipoma, size of a man's fist, cut out of fossa supra-clavicularis, by M. Schuppert.

Two Fatty Tumors, situated over scapula and back of epigastric region, by S. Choppin.

One Fatty Tumor, size of a man's fist, cut out of kneehole, by S. Choppin.

Glandular Tumor of breast, 2 cases, by S. Choppin.

Erectile Tumor, 3 cases, removed by M. Schuppert. The vascular tumors were situated in the faces of children from one to two years of age, and of considerable size, still they were removed with the knife, having taken the precaution to undermine them with needles, in order to allow a quick closing of the wound by the twisted suture, and to avoid considerable loss of blood.

Cartilaginoid Bodies, removed out of knee joint, by S.

Choppin. Although the wound made was a very small one, and the removal of the bodies easily performed, the patient died from pyæmia.

Ætheromatous Tumors, 4 out of one scalp, by M. Schuppert.

Castration of one testicle, with a portion of the scrotum, for carcinoma, removed with the ecraseur, by M. Schuppert.

Phimosis, 5 cases, operated on by S. Choppin.

Piles, 6 cases, removed with the ecraseur, by Choppin and Schuppert.

Procidentia Uteri, cured by a circular excision of 2 inches of the mucous membrane of vagina, by M. Schuppert.

Foreign Bodies in the Trachea.—Extraction of a hirsute seed imbedded in the mucous membrane of the trachea, by S. Choppin.

Anchylosis of Knee Joint and Anchylosis of Elbow.—Both cases cured by breaking up the adhesions, by M. Schuppert.

Dislocations.—Dislocation at the hip joint, 1 case: dislocation at the shoulder joint, 3 cases; dislocation at the elbow, 1 case. All reduced by manipulation, without the use of any pulling instruments.

Fractures.—Fracture of thigh, 1 case; fracture of leg, 2 cases; fracture of humerus, a compound comminutive; fracture of clavicula, 5 cases.

Disease of Hip Joint, with partial dislocation and destruction of the head of the femur, 3 cases.

Of 116 bloody operations (the operations for tenotomy excluded), there are only 6 resulting in death; viz: 3 deaths from pyæmia, 1 from loss of blood, 1 from tetanus, 1 from nervous exhaustion; which shows a mortality of

5.01 per cent. This result is very satisfactory, considering the number of capital operations. Besides it, we enjoy the special satisfaction that all our patients, at the time when discharged from our infirmary, have been entirely cured. The history of some of the more interesting cases, enumerated above, will be given in a later journal. In all the operations mentioned, chloroform was administered to the complete narcosis of the patients, and we have not met either with a bad accident or a case where it failed to bring on the proper effect.

MONTHLY SUMMARY

OF AMERICAN JOURNALISM.

Dislocation of the Scapular End of the Clavicle: Treated by Wiring.—In the September number of the Kansas City (Mo.) *Medical and Surgical Review*, Dr. J. T. Hodgen reports a case of dislocation of the scapular end of the clavicle. The marked prominence of the end of the clavicle led him to suspect a dislocation of the humerus; an examination disclosed that there was no displacement of the head of the humerus, but that the whole ligamentous connections of the clavicle with the scapula had been broken, and that the outer end of the clavicle occupied a position more than two inches in a superior and posterior direction from the facet of the acromion. With the exception of an extensive separation of the bones, there was no peculiarity in the case. The usual treatment of such injuries was unsuccessfully resorted to. Fox's apparatus and compress, with figure of 8 bandage, were then applied, but with no success. In the meantime, the inflammation and swelling of the parts disappeared, but the clavicle was still prominently displaced.

Dr. H. then resorted to the use of iron wires as in the treatment of fractures. An incision was made over the ends of the acromion and clavicle (which were at the same time reduced), and an iron cord, of the the size of a crow-quill, was first passed through the clavicle, and then through the acromion; the ends of the wire were then drawn through from below, twisted together and left, thus holding the parts accurately in position.

The operation was performed on the 15th of June, 1860, and on the tenth of the following month the cord was removed, when the wound was granulating, and the bones were in position. Dr. H. states that this operation has never been performed before, and that it would be justifiable in no other articulation except that uniting the clavicle with the sternum. He claims that his method retains the parts accurately in position, and insures sufficient plastic exudation to unite them.

Local Decomposition in Lead Aqueduct Pipes.—Mr. Jas. R. Nicholls communicates to the Boston *Medical and Surgical Journal* (September 20, 1860), the results of his observations on the decomposition of lead aqueduct pipes.

In many cities supplied with aqueduct water, medical men frequently encounter anomalous diseases in patients, which do not yield to appropriate treatment. Symptoms of a similar character are observed in individuals using well and cistern water, conveyed to them in contact with lead, and the nature of the malady is not suspected until the plumbers repair the pipe made leaky by corrosive action.

In the course of Mr. Nicholl's investigations, several interesting facts were developed. He observed in leaden pipes removed from cesspools, sinks, and wells, that the intensity of the corrosion had been confined to the sharpest bends and depressions in the pipe. We learn there are three causes or agencies to which may be attributed the results of this action:

1. The disturbance in the cystalline structure of the metal by bending, whereby its electrical condition is changed and voltaic action promoted, giving rise to chemical decomposition.

2. The presence of organic matter which pervades all pond water, and which may be detained in the angles and depressions of the pipes. By its presence oxydation is promoted, and the protoxide of lead will remain in solution, unless carbonic acid be furnished sufficient to change it. There are conditions where this could not be the case.

3. The accidental presence of pieces of mortar may produce corrosions in lead pipes. Where mortar is present, the lime would assist not only in the oxydation of the metal, but also in the solution of the oxide. In the erection of buildings portions of fresh mortar are frequently dropped in lead pipes. When the use of the water is commenced by the family, the salts of lead are held in solution, and the presence of lead may be detected for months. The process of oxydation, which is retarded or prevented altogether by the presence of neutral salts in water, could not be interfered with under the conditions considered.

Mr. N. thinks that in the introduction of lead pipes into houses, angles and depressions should be avoided in those leading to the culinary department.

DISEASED SUPRA-RENAL CAPSULES; SUPPOSED ASTHENIA ADDISONII.—Dr. A. Chapin, in a paper read before the Middlesex, East District (Mass.) Medical Society, and published in the Boston *Medical and Surgical Journal* (Sept. 27, 1860), reports a case of supposed supra-renal disease of the capsules. He was consulted by a patient who, for several months, had been failing in bodily and mental vigor. He was suffering from loss of appetite, emaciation, disturbance of his sleep, and his eyes were glassy, countenance haggard, and skin was sallow. There was pain on pressure in the region of the kidneys. Pulse sixty and feeble. The symptoms, in the meantime, became aggravated. The forehead had assumed a dark brown color. The face and feet became œdematus, with occasional vomiting and diarrhœa, and continued pains in the lumbar regions. The urine, on examination, was found to be of light specific gravity, and contained a slight excess of uric acid. Dr. C. attributed the above mentioned symptoms to organic lesion of the supra-renal capsules. The treatment consisted in the use of vegetable tonics, chalybeates, alcoholic stimulants, nutritious diet, and opiates as indicated. The patient, at the date of the report, was rapidly improving, but the dark brown or bronze color still remained.

TREATMENT OF PHTHISIS BY CHLORATE OF POTASSA.—Dr. E. J. Fountain, in the *American Medical Monthly*, communicates a paper, read by himself at the late meeting of the American Medical Association. Dr. F. contends that oxygen is needed in cases of phthisis, to counteract the influences resulting from imperfect æration of the blood. He reports several cases, in which the patients improved under the influence of the chlorate of potassa, of which, at least, half an ounce was daily administered. Dr. F. concludes that:

1. The chlorate of potassa can be exhibited in large doses every day, for a long period, without injury.

2. It assists the respiratory functions by supplying the blood with oxygen.

3. It acts as a natural tonic, alterative and depurant, by increasing the supply of that element which is the chief agent in the chemical processes in the human system.

Sub-Cutaneous Injections.—In the reports of cases illustrative of hospital practices, the Philadelphia *Medical and Surgical Reporter*, of October 6, 1860, in the service of Dr. J. Forsyth Meigs, at the Pennsylvania Hospital, we find the case of a patient, who was admitted into the hospital on the 20th of September, who had been suffering from severe pain in the left lumbar region for the period of six or seven months.

A careful examination disclosed nothing to which the pain could be attributed. His health and appetite were good, urine normal, and digestion good. The case was pronounced to be chronic neuralgia of the lower intercostal and lumbar nerves. He was promptly relieved by a hypodermic sub-cutaneous injection of 20 minims of a solution of morphia, of the strength of 16 grains to ℥i of water, with the internal exhibition, three times daily, of 10 drops of the tincture of nux vomica and one drachm of the compound tincture of gentian.

Veratrum Viride in Puerperal Mania.—At the meeting of the Lancaster (Penn.) Medical Society, of August 22, 1860, and reported in the Philadelphia *Medical and Surgical Reporter* (October 6, 1860), Dr. Jno. L. Atlee, Sr., has mentioned an interesting case of puerperal mania. On account of the uncertainty of all previous methods of treatment in speedily arresting the disease, Dr. Atlee determined to put the patient, as soon as possible, under the influence of the veratrum viride, in the hope that, by controlling the general circulation and diminishing the nervous excitement, some benefit would result. The saturated tincture was exhibited in five drop doses, every three hours, until nausea, vomiting or prostration was produced. Soon after the administration of the third dose, the patient became calm, rested quietly during the entire night. The pulse was reduced in frequency to 56. Dr. Atlee thinks that from the sedative influence of the veratrum upon the heart and nervous system, it might be beneficially used in other forms of mania. A. J. S.

SPECIAL SELECTIONS.

LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the College of France, during the Winter Session, 1859-60.

By M Claude Bernard, Member of the French Institute ; Professor of General Physiology at the Faculty of Sciences.

LECTURE XXVI.—EXPERIMENTAL PATHOLOGY—ON POISONS: EFFECTS OF WOORARA.

Gentlemen—In the eyes of the physiologist and medical phisosopher the effects of poisons are, as we have recently proved, exactly similar to those of disease. You will not, therefore, be astonished to hear that a wide difference exists between the various degrees of intensity with which poisons act upon the animal frame under given conditions: a circumstance which clinical observation easily enables us to foresee, by pointing out the greater or lesser liability of individual patients to peculiar diseases; old age, for example, is the favorite field of certain affections, and childhood that of others; and it even appears that some few disorders are exclusively confined to a limited period of life.

A similar predilection (so to speak) is exhibited by toxic agents for animals placed under particular circumstances: the young are sometimes destroyed by poisons which exert no influence whatever upon the adult; at other times the reverse takes place; the first stage of life remains uninjured, while fatal effects are produced in animals which have already attained their full development. Woorara, the substance which must occupy our attention to-day, stands prominently forth among this latter class of poisons. The fearful effects to which this agent gives birth in full-grown animals are never observed during the embryotic state, and within a few moments the experimental proof of this assertion will be placed before you; but previously to doing this, we think it proper to furnish you with an explanation of the fact.

When the tissues of animals destroyed by woorara are examined, it is easily ascertained that the motor nerves have been deprived of their physiological properties, and that having lost the power of producing muscular contraction under the influence of the will, they remain equally insensible to the action of nervine stimulants. All the other tissues of the body being found uninjured, it is plain that asphyxia has been the cause of death, the respiratory motions being altogether paralyzed; and in consequence, when artificial respiration is had recourse to, life is kept up for a sufficient space of time to allow the poison to be expelled; when this has been accomplished the animal is out of danger.

But in administering this substance in small quantities the intensity of its effects may be reduced to the very lowest degree, although their nature remains identically the same. The respiratory motions may thus be slackened without being altogether suspended, when woorara is instilled, drop by drop, into the vessels; and in this manner the animal may be reduced to five or six inspirations per minute—a quantity just sufficient to support life. Let us now suppose for an instant the process of respiration to be entirely independent of muscular action in a given case: it is clear that woorara could not, under such circumstances, paralyze any of the functions indispensable to life. Now such are precisely the conditions in which the embryo is situated; it breathes by means of a temporary apparatus, and the revivification of the blood is absolutely independent of muscular power. Such is the rational explanation of this singular fact, which fully confirms our former ideas with respect to the part played by the motor nerves in all cases of poisoning by this substance.

The preceding reflections afford an ample demonstration of the fact that the destructive powers of woorara are proportioned to the physiological activity of the respiratory functions in each given case. Of all living beings birds are those which most speedily experience its fatal effects; mammals come next; reptiles and fishes occupy a much lower place in the scale; and last of all we find the embryo, which as it breathes in a totally different manner from the adult animal, escapes altogether unharmed from the action of this formidable agent. The result is that on injecting woorara into the veins of a pregnant female the mother is destroyed, while the fœtus survives, and only dies after a certain space of time, in consequence of the total cessation of the parental circulation.

You are aware that young fishes exhibit for some weeks after birth a very singular appearance: an enormous tumor occupies the ventral region, and offers a far more considerable size than the small streak which lies on its upper surface, and represents the principal part of the animal's body. Now, this voluminous globe is merely the umbilical vesicle, which has not yet been absorbed; as long as this change has not taken place, the little animal neither feeds nor breathes in the ordinary sense of the word; its gills are motionless, but the numerous vessels which ramify over the surface of the umbilical vesicle absorb oxygen by a direct process, without any motion taking place. Little fishes, therefore, remain in the fœtal state long after birth, with reference to the respiratory process; and we are happy to seize upon so favorable an opportunity to show that on animals organized in this manner the action of woorara is altogether powerless. In the basin which we now place before you, several little fishes, in the state we have just described, are freely swimming in an aqueous solution of woorara, and do not appear to suffer the slightest inconvenience from the presence of this agent. The case is widely different with respect to the gudgeon contained in this other vessel; you see that the animal is already dead: for in adult fishes the respiratory process is connected with the gills, which are set in motion by a special muscular apparatus. In this case, the poison has been absorbed by their internal surface, the animal having been plunged into the liquid without the slightest incision being made to allow the deleterious substance a direct passage. The same phenomena takes place in mammals, when woorara is directly brought into contact with the inner surface of the pulmonary apparatus.

In order to render the contrast still more striking, if possible, we have placed some other little fishes in a solution of upas antiar, and death has been, as you perceive, speedily produced. How is this difference to be explained? The action of upas, instead of paralyzing the motor nerves, destroys the properties of the muscular fibre itself, and arrests, in the first place, the contractions of the heart —a cause of destruction from which the embryo itself cannot of course escape.

Nor is this all. Our little fishes, as you may see, rapidly swim about in the liquid impregnated with woorara, and freely make use of their muscles, which this poison has not been able to paralyze. We meet here with a second difficulty: how can we understand the prodigious difference in the effects produced in the embryo and in adult animals? The reason is, that during the fœtal state the muscular apparatus enjoys an independent power of contraction, and does not obey the motor nerves. Take a hen's egg during the latter part of the process of incubation, break the shell, and place it on a warm stove; the heat provokes distinct motions in the limbs of the young animal, which offer some analogy with those of the fœtus *in utero;* yet, if the nerves are laid bare and then galvanized, no contraction whatever is the result. The fact is, that in the fœtal state the separate existence of the various systems is the rule; while the reverse takes place in the adult being. The embryo's heart beats long before nervous influence is brought to bear upon its contractions;

and its muscles are capable of acting long before they have assumed the fibrillary state, and while merely composed of a series of cells. There exists, in this respect, a striking analogy between the embryo and animals belonging to the lower degrees of the scale, in which the nervous system either does not exist, or exerts no visible influence on voluntary motions; thus, when leeches are poisoned with woorara, they remain motionless for a time, when left undisturbed; but when stimulated, immediately set forwards: after a few hours, the animal resumes its pristine activity. In polypi, the action of this substance altogether disappears, for in such beings there exists no nervous system for the poison to work upon.

The action of woorara upon the motor nerves is, therefore, a positive fact, which now lies beyond the reach of all objections; and by observing the results which follow its introduction into the system, each animal's position in the scale of life may in some manner be ascertained. In order to convince you of this, we shall simultaneously poison a frog and rabbit before you; the influence of woorara will in the first case be slow to exhibit its effects; while, in the second, it will almost instantaneously be felt.

(The experiment is performed. A few drops of a strong solution of woorara are introduced under the skin of a rabbit. A large and vivacious frog is simultaneously poisoned with a proportionate quantity of the same substance. During the first three minutes the rabbit does not appear to feel the slightest inconvenience, and when set at liberty jumps down from the table and endeavors to make its escape. At the expiration of three minutes and a-half it grows weak, and can hardly stand on its legs; after five minutes, the animal is completely motionless, and respiration no longer takes place; the heart does not, however, cease to beat before ten minutes have elapsed. The phenomena produced in the frog are identical, but death does not take place before seventeen minutes.)

We shall now, gentlemen, examine in succession the various tissues of these two animals, and you will find that the nerves alone have been affected. We shall then consider the results of this lesion, and you will perceive that scientific analysis, even when carried as far as possible, frequently remains powerless to explain the phenomena which daily meet our eyes.

Since the period when my labors on this subject were first placed before the public (in 1850), the question has attracted the notice of several distinguished physiologists; it is directly connected, in fact, with one of the most important points in the science of life, viz: the respective independence of the muscular and nervous elements. There exists in all muscles a contractile property, which Haller described under the name of irritability. This power obeys the nervous impulse in the normal state, and yet enjoys a separate existence. The movements of the embryo are a proof of this; and the action of woorara after absolutely destroying the stimulating property of motor nerves, does not prevent the muscles from acting as usual under a direct stimulus. Before these experiments were known, it was contended that in galvanizing the muscle itself, the minute nervous filaments disseminated in the contractile tissue were excited, and that in this manner alone contraction was produced; but the effects of woorara, and other poisons, enable us to lay down an absolute distinction between the properties of the two systems concerned in locomotion.

We take a healthy frog out of this jar. The skin being removed, we lay bare the sciatic nerve, and galvanize it; convulsions are instantly produced in the corresponding posterior limb. The experiment being repeated on the frog we have just poisoned, exhibits the complete indifference of the muscles to excitations brought to bear upon the nervous system. Where is the difference between these two sets of nerves, the physiological properties of which are so completely opposed? Let the paralyzed nerve be placed under the microscope; no alteration appears in its intimate structure. Let its chemical composition, and physical properties be in their turn examined; no modification whatever is found to have taken place. We cannot foresee the ultimate results which science may possibly attain to some day, and the efforts of anatomists will, perhaps, at some future period be rewarded with the discovery of the precise alteration produced in the nerves by the effects of woorara; but up to the present moment no satisfactory solution of the difficulty has been propounded.

Professor Jacubowich, whose remarkable labors on the structure of the nervous centres are perfectly well known to you, has deeply studied the question, as far as microscopical anatomy is concerned, in animals killed with woorara, prussic acid, and other toxic agents, which exert an immediate influence on the nervous system; and he states that in all such cases, he has met with ruptured nerve-cells, and broken cylinders, in the spinal chord, concurrently with other lesions of the same kind. It has also been supposed that woorara is chemically combined with the nervous substance, and acts upon it in the same manner as oxyde of carbon on the blood-globules; but neither of these ingenious explanations appears adapted to the facts of the case, when it is borne in mind that artificial respiration, kept up for a space of time, enables the animal to recover. How could a similar result be obtained if the nervous system had undergone a complete disorganization ; or if a chemical compound of a peculiar nature, but no longer apt to transmit the nervous fluid, had been the result of the experiment? The nervous system in this case would never be able to recover its physiological properties.

Others have expressed the opinion that the nerves themselves are not the real seat of the injury produced, but that a peculiar tissue which serves as a medium between the muscular and nervous elements has been affected by poison, but the same objections as before are applicable to these views ; if a permanent change has been produced, how is it that the effects of the poison vanish as soon as the noxious substance has been eliminated from the system? Besides, if the nerves are no longer capable of transmitting the involuntary impulse, the fact is sufficiently explained by the disorganization of their ultimate extremities, without having recourse to the destruction of an intermediary tissue, the existence of which is far from being established.

We are indebted to M. Betzold for some beautiful experiments upon this subject. The rapidity with which the nervous system transmits the impulsions which it has received has been calculated by Professor Helmholtz ; he ascertained that it oscillates between sixty and eighty metres per second (190 to 240 feet). When the nerve is of considerable length, as in the case of the sciatic trunks, a sensible difference is perceived in the swiftness with which contractions are produced, when the stimulus is applied to its root, or its distant extremities. The normal rapidity of the phenomenon having been carefully ascertained in a sound animal, M. Betzold slowly poisons it with a weak solution of woorara, and carefully notes the progressive diminution which succeeds in the swiftness with which the nervous fluid is transmitted to a distant point ; it falls from sixty metres per second (the absolute minimum in the healthy state) to five metres ; below this point, the transmissive property disappears altogether.

But however deep the perturbation occasioned in the motor nerve, with respect to its physiological activity, all its physical properties remain intact ; the electric currents described by M. Dubois Raymond still continue to exist, and retain the same degree of intensity of action. The same is the case as far as other properties of a merely physical order are concerned.

In conclusion, it is evident that the physical, chemical, and physiological characteristic of the tissues which compose the animal organization, are entirely distinct, and exist independently of each other ; and, in this particular case, the action of woorara would appear to be strictly confined to the physiological properties of the nervous system ; for, in every other respect, the injured nerve is perfectly identical to the sound one. There remains, therefore, an extensive field for future investigations ; and the discovery of the secret still withheld from us cannot fail to interest the working physiologist in the highest degree ; for a strong light will, in this manner, be thrown on the most intimate properties of the nervous system.

EDITORIAL AND MISCELLANEOUS.

Leidy's Anatomy.—We are just in receipt of a copy of this new work, and do not hesitate to pronounce it one of the best books for the student. In some respects, we do not think it equal to Wilson ; in others, we think it superior. Certainly, the illustrations of microscopic anatomy, are of the first order ; indeed, to our mind, they are far the most satisfactory we have ever seen. They are so clear that the student must understand them. We perceive that several of the best cuts are from the pencil of Dr. H. D. Schmidt, Demonstrator of Anatomy in the New Orleans School of Medicine.

Retirement of Ricord.—We learn from our exchanges that this distinguished member of our profession has retired from the post of surgeon to the Hôpital du Midi. It seems that the hospital regulation requires each medical officer to retire at the age of sixty years. Mr. Ricord will be sixty years old on the 10th of December, 1860, and he retires in advance.

The Heaviest Child.—The London *Medical Times and Gazette* gives what appears to be an authentic account of a child weighing 18¼ pounds at birth, and being born alive. This is a heavy child ; but the reporter of the case afterwards, in the same journal, states that Mr. Davis, of Pershore, attended a woman, many years ago, who was safely delivered of a living child weighing nineteen pounds and two ounces.

THE HEAVIEST TWINS.—The Nashville *Journal* for November, 1860, says that Dr. Hubbard, in noticing a case reported in the Boston *Journal*, in which the twins weighed at birth 17 pounds and 5 ounces, mentions a case in his own practice, in which the twins weighed 18¾ pounds—the boy 8¾ pounds, and the girl 10 pounds. In this case, both children presented by the head, and in first position—a rare circumstance.

DR. HOLMES'S ADDRESS.—From an October number of the Boston *Medical and Surgical Journal*, we learn that at the suggestion of Dr. James Jackson, of Boston, the Massachusetts Medical Society, at an adjourned meeting, have rescinded their resolution in relation to Dr. Oliver Wendall Holmes's annual address before them, and which was to the following effect:

Resolved, That the Society disclaims all responsibility for the sentiments contained in this annual address.

We are a long way off from Boston, and may not know as much about how the Massachusetts Medical Society should conduct itself as its members do, but we can tell them that the published address is universally condemned by those who read it, and that no resuscitative resolution passed by the Society can ever restore Dr. Holmes in the estimation of real medical men. He has clearly proven himself a one-idea'd man, and a dangerous enemy of the noblest of professions.

PRACTICAL LECTURES.—We beg to call attention to the practical lectures which are now appearing in our original department, from the hands of Professors Flint and Crawcour. These gentlemen have kindly consented to give to our readers monthly contributions of this kind, and we know that nothing can be more acceptable or valuable. We have long looked for the time when laborers of this sort would he found cultivating the Southern field of medicine, and must congratulate ourselves and our readers on the final achievement of the end we have had in view.

PRIVATE INFIRMARY OF DRS. CHOPPIN AND SCHUPPERT.—In our original department of this number, the reader will find a summary of the surgery of this flourishing infirmary for the past two years—the first of its existence. Of the success attending operations, and of the value of the institution to the students of the New Orleans School of Medicine (who have free access), there can be but one opinion, and that the most favorable.

We cheerfully give place to the following circular, and direct the attention of our readers to it. Dr. Gibbs has shown that he is capable of doing good service in the manner he proposes, and he ought to be liberally patronized.

CIRCULAR.—The undersigned proposes to issue a yearly volume with the following title: *Year Book of American Contributions to Medical Science and Literature.* It is designed that part *first*, of each volume, shall comprise an arranged and classified *summary* of, and index to, all the important and original papers found in the various *Medical Journals* of this country, for the year immediately preceding. Part *second* will comprise a *summary* of, and index to, all papers found in the published transactions of the National and the various State and County Medical Societies. Part *third* will embrace reviews of all medical books of American authorship, published during the year, with a *summary* of all the novelties in opinion or practice therein.

To the above plan and arrangement, such other additions shall be made as time and circumstances may suggest. The first volume will be issued early in the Spring of 1861.

In the preparation of our *Summary of American Medical Journalism* for the *American Medical Monthly*, we have solicited a copy of all Medical Journals published in this country; the *American Journal of Medical Sciences*, the *N. O. Medical and Surgical Journal*, and the *Ohio Medical and Surgical Journal* are the only ones that have failed to comply with the request. To facilitate our design, we request an *exchange* with *all American Medical Journals*, to be sent to our address as issued. All Medical Societies who publish their transactions, will, we trust, be kind enough to send their transactions to us. Publishers of medical books, particularly of American authorship, are earnestly requested to send, so soon as issued, *all books* of the character as above.

The importance of a work of the character as above, for the information of the profession, and for the honor and dignity of *American Medicine*, will readily be conceded by all. We cannot prepare the work and publish at a pecuniary loss, and, hence, the object of this circular is to request that all physicians who would encourage the work and become subscribers to the same, would send us their names *at once*—payment to be made only on publication of the work. The work shall contain from 500 to 1,000 pages, be substantially bound, and furnished at the low price of *three dollars.* That we may know whether the work is to receive sufficient encouragement to justify its completion and publication, we request that subscribers' names may be sent in immediately. As a special favor and encouragement of this truly national enterprise, we would request that all Medical Journals of this country would copy our circular.

To Editors and Publishers we would say that it is designed that our YEAR BOOK shall commence its gleanings with the year 1860. Journal editors and book publishers will remember this, in sending their respective publications to our address.

All Books, Journals, published Transactions, and names of subscribers, should be directed to

O. C. GIBBS, M. D.,
Frewsburg, Chautauque Co., N. Y.

TO OUR SUBSCRIBERS.—Several months have passed since we dunned our delinquent subscribers. We are now really in want of money to pay the printer. Come to our relief, gentlemen. We only ask for money to pay the expense of publishing for the *Gazette*.

THE LECTURE SEASON.—The lecture season in our city has opened under the most favorable auspices. At this time (Nov. 20th) there are more students of medicine in New Orleans than ever before at the same date.

PAMPHLETS RECEIVED.

"*Transactions of the State Medical Society of Indiana*, at its Eleventh Annual Session, held in the city of Indianapolis, May 17th and 18th, 1860."

Containing several very interesting papers.

"*Sclerotico-Choroiditis Posterior, with cases and illustrations.* By HENRY D. NOYES. M. D., etc., etc. Reprinted from New York *Journal of Medicine* for March 1860."

"*Medico-Legal: an inquiry concerning the value of testimony respecting facts as they appear to a mind partly conscious.* By T. L. WRIGHT, M. D., Bellefontaine, Ohio. Printed from the Transactions of the Ohio State Medical Society."

A very able and deeply interesting production.

"*Thirty-ninth Annual Report of the Surgeons of the New York Eye Infirmary,* Second Avenue, corner Thirteenth street, for the year 1859."

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EXCERPTA.

APHORISMS RESPECTING THE RODENT ULCER.—1. That there occurs not infrequently on one or other part of the face a form of ulceration which is characterized by an indurated edge, and by a tendency to spread to adjacent structures, without regard to difference of tissue; which is very slow in its progress; does not cause much pain; does not induce cachexia, and is never followed by enlarged glands or deposits in the viscera.*

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* In making this assertion, I am borne out by all the facts hitherto recorded. Fully acknowledging, however, the near relationship of rodent ulcer to cancer, I have but little doubt that it will now and then so far deviate from its usual course as to affect the glands, and quite anticipate in the future to hear of such a case. Epithelial cancer may be said to almost never affect the internal organs, yet a few cases are on record in which it has done so. Such exceptions, however, only prove the general rule; and just as the epithelial cancer very exceptionally affects the viscera, so will rodent very exceptionally affect the lymphatics. Professor Langenbeck has mentioned to me a case in which he excised a rodent ulcer from

2. Sections of the indurated edge of this ulcer (or of the portions of new growth which are sometimes produced about it) do not exhibit the cell-structures met with in epithelial or scirrhous cancer, but only those of organizing fibrous tissue.

3. This ulcer differs from lupus exedens in that it never occurs in the young, and never gets well spontaneously, while lupus exedens but rarely begins after the age of thirty, and usually tends after the lapse of time to cicatrize spontaneously. The two, also, further differ, in that lupus has a tuberculated, inflamed border, without any great degree of induration; while the edge of the ulcer in question presents an extremely indurated ridge, without tubercles, and comparatively free from inflammatory congestion.

4. The ulcer in question differs from cancer in that there is but seldom present any tendency to the production of new material, that it never causes the glands to enlarge nor induces morbid growths in the internal viscera.

5. Although it must be freely admitted that this disease is closely allied to cancer, and that in its inveteracy under treatment, and its tendency if not removed to spread deeply and extensively, it well deserves the designation of "locally malignant," yet it is inconvenient in practice to call it "cancer of the skin," since there are other forms of cutaneous cancer (the epithelial, scirrhus, melanotic, etc.) essentially different from it, and of a far higher degree of malignancy.

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the side of a woman's nose, who afterwards remained well for nine years, and was then attacked by cancer of the uterus, followed by secondary growth and death. Such a fact is, however, very different from one in which the cancerous infection should advance, as in other malignant disease, through the lymphatic system, from the original ulcer.

6. The term "a peculiar ulcer occurring in the eyelids," is too vague, and also involves an erroneous statement as to uniformity of location, an objection which, also, in addition to what has been stated above, applies to "cancer of the eyelids," since this ulcer is met with on many other parts besides the palpebræ.

7. To the designation of rodent ulcer given to this disease by Lebert, and adopted in this country by Paget (see Lectures on Surgical Pathology), no objection applies, excepting that it is more vague than desirable. Of those in use it is certainly the best, and should the disease become generally recognized by the Profession under that name, the vagueness of its meaning will by custom soon cease.

8. The rodent ulcer is most commonly met with between the ages of 50 and 60, and is equally frequent in the two sexes.

9. It occurs but very rarely on any other region than the integument of the face, and is most common in the eyelids.

10. It is a singular and very significant fact that no case has yet been recorded in which the rodent ulcer attacked the lower lip, either primarily or by extension, while that part is well known to be a very frequent seat of epithelial cancer.

11. The *diagnosis* of rodent ulcer is usually easy. An ulcer with a hard sinuous edge, situated on some part of the skin of the upper two-thirds of the face, of several, or, perhaps, many years' duration, almost painless, and occurring in a middle-aged or elderly person, of fair health and without enlarged glands—such a sore is almost certain to be of the rodent type.

12. The *prognosis* of rodent ulcer varies with the

stage of the disease and the treatment it is intended to pursue. If left to itself, it will slowly but surely advance both in extent and depth, and will probably destroy the patient's life in the course of from ten to twenty-five years, death being eventually produced by the exhaustion consequent on suppuration, hæmorrhages, pain, etc., and very probably aggravated by inability to take sufficient food owing to the diseased state of the mouth. If the case be seen in an early stage, while complete removal either by knife or escharotics is practicable, a favorable opinion may be given as to the probable non-return of the disease. The younger the patient, the more rapid will be the course of the disease, and *vice versâ ;* and the younger the patient the more nearly is the disease allied to cancer, and the more likely to recur after removal.

13. The only *treatment* which the rodent ulcer admits of is local, and the best is that which obtains its freest removal with the least injury to the parts concerned. In some localities, and in some stages, escharotics, such as the chloride of zinc, may be advisable, but in most excision and transplantation of skin is the more certain and satisfactory.

14. A widely-diffused knowledge of the true pathology of rodent ulcer may be expected to result in considerable advantage to the sufferers from that disease, since it will encourage to the early and free adoption of local measures and to the employment of excision and transplantation, even in some cases which, if considered cancerous, would certainly be beyond relief by surgical art.—*Med. Times and Gazette.*

On the Physiology of Digestion.—Prof. Busch, of Bonn, has had the opportunity of making experiments on digestion upon a woman who had been tossed by a bull, and presented, in consequence of the accident, a fistulous opening communicating with the small intestines. The fistula was so complete that the bowel was divided into two perfectly distinct halves. The upper portion consisted of the stomach, the duodenum, and of a probably minute piece of small intestine; the lower portion was composed of the remaining part of the small intestine, the colon, and rectum. Through the upper half, the food introduced into the stomach, as well as the digestive fluids of the latter organ, the liver and pancreas, escaped, no part of them finding their way into the lower half. This state of things was therefore favorable to the study of the action of the stomach, of the biliary and pancreatic secretions and also of the intestinal secretions and independently of the liquids just mentioned.

One of the first effects of the pathological state of this woman was a considerable loss of flesh, as observed when she came into the hospital, six weeks after the accident. Her appetite was, however, insatiable, though she was as weak as those animals in whom artificial fistulæ are made. She was also very drowsy and cold; but this temperature was merely objective, for a thermometer introduced into the intestine marked a normal heat. All these symptoms disappeared when the patient recovered a little strength, in consequence of a generous diet.

She used to swallow an enormous quantity of food without feeling satisfied; but by thus eating largely she felt better, though still hungry. When the stomach was empty she felt ill. The woman was so thin that the coils of intestines could be seen through the parietes of the abdomen ; and it was observed that the peristaltic movements were as energetic as those of that portion of the intestine situated above the fistula and open to view.

As the intestinal secretion or juice was perfectly pure and unmixed with any chyme, which latter all escaped by the fistula, a good opportunity was offered for studying the nature of that juice. Prof. Busch found the quantity always small, and tried its effects upon protein compounds, starch and cane-sugar, these being the first experiments of the kind ever made. The patient was at the same time fed by the introduction into the lower part of the intestine, through the fistula, of beef tea, beer, soups with flour, meat, hard-boiled eggs, etc. Soon after these injections were resorted to, she had numerous stools, a circumstance which had not been observed since the accident. The evacuations had a well-marked smell of putrefaction, without any undigested portions of meat or hard-boiled eggs being noticed in them ; this being a clear proof that the intestinal juice acted as a solvent upon the food passing through the canal.

Mr. Busch used to wrap the various substances introduced in a piece of muslin, after having carefully weighed them, in order to observe the action of the intestinal juice. He noticed that it was principally upon starch that this juice exerted an energetic solvent power.

An interesting point was to find out what would become of fatty matter without the assistance of bile or pancreatic juice. According to expectation, fatty substances passed without being absorbed, or at least but a very small portion of them disappeared.

M. Busch also examined the state of the substances which escaped by the upper portion, namely, those which had been subjected to the action of saliva, the gastric juice, bile and the pancreatic juice. A very extraordinary fact observed was, the rapidity with which the alimentary substances escaped. In from fifteen to thirty minutes after the ingestion of the food by the mouth, it was observed to escape by the fistula ; hard-boiled eggs appeared in from twenty to twenty-six and thirty-five minutes ; cabbage took from fifteen to nineteen minutes ; meat from twenty-two to thirty minutes ; potatoes fifteen minutes. When the meal was plentiful, complete digestion required from three to four minutes (?).

The substances which escaped by the upper end of the divided canal seemed at first sight to have undergone but little change ; they were, however, considerably softened, and the meat presented both longitudinal and transverse cracks or slits. M. Busch thinks that the fluid in which these substancess were suspended contained no longer any saliva.

We add a few of the propositions which the author considers as proved by the experiments above enumerated :

1. The perisaltic movements of the intestines are as vigorous when the bowels are covered by skin as when they are exposed to the air ; they withstand the pressure of a column of water two feet high. 2. The intestinal tube has periods of rest and motion. 3. The intestinal juice is secreted in small quantity ; its reäction is always alkaline ; and it contains, on an average, 5.47 per cent. of solid matter. 4. It decomposes starch and protein compounds. 5. It changes starch into grape-sugar. 6. It decomposes protein compounds with the phenomena of putrefaction. 7. It does not change cane-sugar into grape-sugar. 8. Cane-sugar, when wholly absorbed, does not reäppear in the urine. 9. Fat which has not been brought in contact with the bile or pancreatic juice, is either not absorbed,

or if so, in very small quantities. 10. The first portions of the food introduced into the stomach reach the first third of the small intestine, on an average, in from fifteen to thirty minutes. 11. Cane-sugar held in solution disappears almost entirely at the beginning of the intestinal canal; any such cane-sugar which reaches the small intestine is changed into grape-sugar. 12. Unboiled white-of-egg is absorbed in the stomach, or the first part of the intestine; the portion which goes beyond has not undergone any change. 13. Gum is not changed into sugar; it passes into the intestines without alteration. 14. Gelatine becomes dissolved, and loses the faculty of coagulation. 15. Traces of caseine in solution are found in the intestine after the ingestion of milk. 16. Fat forms an emulsion with the fluids which find their way into the small intestine, when these fluids have an alkaline reäction; the emulsion is incomplete when they are acid. 17. The mixture of juices in the small intestine has a digestive action in the protein compounds. 18. The minimum of the digestive juices which reach the upper part of the small intestine in twenty-four hours, weighs more than one-seventeenth part of the whole body.—*Archiv. für Path. Heilk. and Gazette Médicale de Paris.—Maryland and Virginia Medical Journal.*

Bad Breath.—The following mixture is strongly recommended for this disagreeable affection, which so often arises from some slight stomach disorder. A teaspoonful is to be taken three hours after breakfast, and the mouth to be occasionally washed with it. Chlorate of Potash, two ounces, sweetened water, four ounces.—*Nashvillle Jour. Med. Surg.*

THE NUMBER OF CHILDREN A WOMAN CAN BEAR.—The question of how many children a healthy woman can bear, during the child-bearing period of her existence, is one of some interest. If a couple live harmoniously together during a long life, and marriage has taken place very early, it is quite possible that as many as 24 may have been born to the State, at intervals reasonably short, and without their coming as twins or triplets. Amongst the poorer classes this regularity is met with, although even amongst them a pretty large number of children are born. On looking over the Register of the St. Pancras Royal Dispensary since the year 1853, six instances occur in which over 16 children were born; thus, two patients, aged 42 and 46 years respectively, were each confined of their seventeenth child; one aged 39, of her eighteenth; whilst three, aged respectively 39, 40 and 50, were confined of their nineteenth. The last patient, 50 years of age, besides her 19 children, had four miscarriages. In most of these cases the births were single, although occasionally twins were born. The greatest age was 50. Dr. Gibb states that on a careful examination of the Register for many years back, the age of 50 is the highest at which any patient was admitted; and as the same patient did not present herself again, it is probable she ceased to bear children.

If the cessation of the catamenia determines the time at which gestation ceases, then it must occur in some instances as late as 55 or even 60 years; for M. Brierre de Boisment, who determined the critical period of life in 181 females, found that it occurred in 21 between 51 and 55 years, and in 5 between 55 and 60 years.

In considering the number of children a woman can bear, we of course here exclude those cases of multiple births, wherein from 2 to 6 children are born at one time, and which will thus swell the number of children brought into the world by one woman to as many as from 25 to 69.—*Lancet*.

DR. CARSON'S MODE OF SLAUGHTERING CATTLE.—About twenty years ago, my father, the late Dr. Carson, took out a patent for a new method of slaughtering animals, based upon the physiological doctrines promulgated by him in his "Enquiry," published in 1833. Shortly after the patent was acquired, my father fell into bad health, and, as great prejudice against the method existed, by the advice of my brother, who was then a rising young physician, although he quite approved of the principle, the patent was allowed to lapse without his family deriving any advantage from it. Being so thoroughly convinced of the superiority of the meat killed by this mode, I have occasionally, since my father's death, had sheep, calves, lambs and pigs slain in this way, and for nearly two years my butcher has constantly killed these smaller animals. I have not allowed him to attempt the slaughter of oxen, for which, indeed, he has not suitable tackle ; but this man now kills with the greatest facility the animals I have mentioned. Every one who partakes of the meat admits its superiority in flavor, in tenderness and juiciness. It keeps longer than meat killed in the ordinary way ; it cures admirably and is, without doubt, more nutritious. A number of scientific men in London have tasted it, and they have all expressed to me their great approbation of it, but I am not at liberty at present to publish their names. The first process in killing is by collapsion of the lung, which can be done in from twenty to thirty seconds, and immediately afterwards, to facilitate death, to destroy irritability, by cutting the spinal cord. The animal dies immediately and in the operation only a few drops of blood are lost. In dressing, the only blood which flows is venous; it is dark as pitch; it soon coagulates and becomes a solid mass, and is perfectly free from serosity. About one-half more of the blood and all the finer juices are retained by this process, than in animals slaughtered in the ordinary manner—in sheep perhaps three pounds' weight, and in an ox as much as twenty.

In seeing the butcher dress the animal, the inquiring and thinking physiologist will be particularly struck with the appearance of the bowels and viscera, the veins and arteries of which resemble red netted work, and which in the ordinary mode of slaughtering, are perfectly blanched. The operation, though exceedingly simple, requires a little practice, and if attempted by an unskilled person, may end in failure. My butcher suspends the animal by the fore feet, the carcass being quite off the ground, and the hind feet are fastened to a ring in the floor to keep the animal steady. He then makes an incision into the chest with a scalpel on each side, between the fifth and sixth ribs, after which you hear the air distinctly rushing into the chest. But in order to make the collapse as complete as possible, I have made the man use large elastic enema bags with a valve. The operation with him is now perfectly successful, and he never makes a mistake. I am not a medical man myself, and although well acquainted with the physiological views of my late parent, I am not able to discuss this subject with the eminent physiologists of the present day; but of the superiority of this over the ordinary practice I have not the least doubt.—*Lancet.*

USELESSNESS OF SARSAPARILLA.—Professor Sigmund, the Vienna syphiliolographist, has been conducting a series of experiments with carefully-prepared sarsaparilla, and has come to the conclusion that the employment of this substance alone in gonorrhœa or in primary or secondary syphilis is of no essential service; while the efficacy of other decoctions which contain it, especially Zittmann's, is not due to the fact of their containing sarsaparilla. He refers to the enormous expenditure which is incurred for this drug throughout Europe, and which he evidently regards as so much money thrown away, as far as syphilitic affections are concerned.—*Zeitschrift Aerzte der zu Wein*, 1860, No. 1.—*Maryland and Virginia Medical Journal.*

IMPROVED TASTE TO COD-LIVER AND CASTOR OILS.—Cod-liver or castor oil, shaken up with an equal volume of water distilled off the leaves of the wild cherry tree, in a manner similar to that directed in the Edinburgh or Dublin Pharmacopœia for cherry laurel water, and left to rest forty-eight hours before separation, acquires by this simple operation an extremely sweet perfume and agreeable taste of almonds; the taste remains as long as the digestion lasts. Oil flavored in this way could be taken by many patients who reject it in its natural state. Castor oil is not affected in its purgative action by this process.—*Boston Med. and Surg. Jour.* Sept. 27. *from Louisville Med. News.—Med. News and Library.*

VENTILATION OF ROOMS AT NIGHT.—An extraordinary fallacy is the dread of night air. What air can we breathe at night but night air? The choice is between pure night air from without and foul night air from within. Most people prefer the latter.

An unaccountable choice. What will they say if it is proved to be true, that fully one-half of all the disease we suffer from, is occasioned by people sleeping with their windows shut? An open window most nights in the year can never hurt any one. In great cities night air is often the best and purest air to be had in the twenty-four hours. I could better understand in towns shutting the windows during the day than during the night, for the sake of the sick. The absence of smoke, the quiet, all tend to making night the best time for airing patients. One of our highest medical authorities on consumption and climate has told me that the air of London is never so good as after ten o'clock at night.—*Florence Nightingale.—Pacific Med. and Surg. Jour.*

Tannin as an Antidote to Strychnia. — As the result of many experiments performed on rabbits and dogs, Dr. Kurzak comes to the conclusion that tannin promptly administered, is the best antidote in poisoning by strychnia. From twenty to twenty-five times the quantity of tannin is necessary ; but even a larger amount should be administered, as the contents of the stomach, and especially gelatine, may absorb a portion. Tannin is the more eligible a remedy, inasmuch as it is easily procurable in the shape of gall-nuts. A portion may be rapidly reduced to powder and administered in water, while an infusion or decoction is prepared. For every grain of strychnia, at least two and a half drachms of the gall-apples should be given. It will, indeed, be most prudent to administer a still larger quantity, especially when vomiting occurs. The experiments made by the author with *green tea* show that this also possesses a certain amount of efficacy ; but as it requires to be administered in such large doses, it becomes itself almost a poison. It can, therefore, only be of use when a very small quantity of strychnia has been taken, or as a mere adjuvatory. *Coffee* exerts still less effect. *Oak-bark*, containing 3-5 per cent. of tannic acid, may be advantageously used when the oak-apples are not accessible ; and various other substances containing tannin, as acorns, horse-chesnut bark, green walnut-shell, etc. Vegetable acids must be avoided during the treatment of strychnia poisoning by tannin, as they favor the solution of the resulting precipitate. The same caution applies to alcoholic drinks. As the experiments have shown that active efforts increase or even induce the convulsions in strychnia poisoning, every care in treating the accident must be taken to avoid all such movements or any powerful stimulation.—*Zeitschrift der Aerzte zu Wien*, No. 11.

SEDATIVE PILLS.—The following is the formula of the most efficacious pills in the sleeplessness of hypochondriacs and hysterical persons, and indeed all persons suffering from nervous affections : Assafetida one drachm, sulphate of morphia three grains, into thirty pills, one or two at bed-time. From two to four of these pills daily are of great use in relieving the dry cough to which nervous women with irregular menstruation are liable.—*Moniteur*, No. 97.

AFFECTION OF THE HIP JOINT AS A CONSEQUENCE OF UTERINE DISEASE.—Dr. Hoppe calls attention to the fact that in the course of the uterine disease, there may be well-marked hip-joint disease set up, as indicated by pain and tenderness in the region of the joint or the trochanter, and impeded movement, owing to the contraction of the adductors and flexors. Both sides may be affected, either simultaneously or in succession. It may exist only in a trifling degree ; and when it prevails to a greater extent, it may go on afterwards independently of the uterine affections. In moderate cases the affection of the hip-joint disappears with that of the uterus.—*Berlin Med. Zeitung*, No. 2.

ICE AS AN APPLICATION IN DIPHTHERIA.—M. Grand-Boulogne, referring to the great success attending the practice of M. Blanc, of Strasburg, who states that he has scarcely ever failed in curing diphtheria by means of cold-water gargarisms, repeated twenty or thirty times in the hour, states that he himself, during two bad epidemics of this disease in the Havana, met with remarkable success from a still simpler procedure, viz : causing the patients to keep constantly in their mouths small fragments of ice, continuing the practice even into convalescence.—*Presse Méd. Belge*, No. 13.

TRACHEOTOMY IN CROUP—M. Henriette, of the St. Pierre Hospital, at Brussels, in a note to Professor Thiry, states that having well nigh abandoned this operation, after repeated failures, his confidence in it has of late been restored by several instances of success, he having had four recoveries out of eight operations performed since the end of last year. He believes the chief cause of its failure is the great delay in resorting to the performance of the operation. As soon as medical means have failed, and the early symptoms of asphyxia are present, when, indeed, we can otherwise only look to chance for success, we should at once operate before the child's powers become too much exhausted.—*Presse Méd. Belge*, No. 34.

ON MOVEABLE SPLEEN.—*By Professor Rokitansky.*—Professor Rokitansky gives an account of three cases in which the spleen was found dislocated after death. The first occurred in 1820, in a young woman, aged twenty, in whom the Cæsarean section had been performed; the spleen was found upon the right ilium, attached to a twisted pedicle, and with its hilus turned up and outwards. It was attached above to the omentum majus, and below to the anterior lamella of the broad ligament; it was also adherent to the peritoneum, investing the iliac muscle. The pedicle consisted of the pancreas and the splenic vessels, the former making three spiral coils round the splenic artery. The pancreas was above ten inches long, being drawn out and thinned considerably. The second case occurred in 1826, in a microcephelic female, aged forty-six, with glandular ulceration and tubercles in the liver and lungs; the spleen had sunk down into the left iliac region, being attached to a long pedicle and to the omentum. The third case occurred in 1851, in an insane female, sixty-nine years of age. The spleen lay to the left of the upper aperture of the pelvis, attached by false membrane to the sigmoid flexure and several coils of small intestine. It was attached to the gastro-splenic ligament, which was twisted upon itself and split up into several strands; the splenic artery was elongated, contorted and thin, at its division very narrow, and its branches obliterated and here and there ossified. The vein was blocked up in the same way. The spleen was of the size of a goose's egg; its capsule presented cartilaginoid thicken-ing, and was extensively detached from the parenchyma. The pancreas was normal and occupied its usual place.

It is to be remarked that, as in the above cases, dislocation of the spleen almost always occurs in females ; the organ generally, though not invariably, descends upon the left iliac fossa, and is commonly brought on by tumefaction of the spleen ; doubtless, a want of tone and some irregularity of form in the splenic ligaments contribute to induce the accident. As it descends, the spleen rotates upon itself, so as to twist its pedicle, and narrow or obliterate the vessels. The spleen forms adhesion in its new site, and may remain there for a considerable time ; the arrest of the circulation in the splenic vessels induces atrophy and degenerative changes. Death may be brought on by the traction exerted upon the fundus of the stomach, and by the gangrene resulting from the diminished calibre of its vessels. *Zeitschrift der Gessellsch. der Aerzte*, No. 3, 1860.

ON THE LIMITS WITHIN WHICH "ECRASEMENT LINEAIRE" SHOULD BE EMPLOYED.—*By Dr. Oscar Heyfelder.*—The chief grounds for preferring the employment of "écrasement linéaire" are stated to be the avoiding the loss of blood, and the possibility of operating upon spots accessible with difficulty, or inaccessible to the eye and the hand. On examining these pretensions more closely, we find that hæmorrhage is only absolutely avoided when the structures operated upon possess but few blood-vessels, or when the crushing process is carried on only at considererable intervals. When parts are not very vascular, their division with the knife gives rise to no dangerous hæmorrhage ; while, when an hour or two is occupied in dividing thick textures by the écraseur, it becomes a matter for consideration, whether the patient and the operator will have the necessary patience and time, the former having also to suffer no inconsiderable pain, or to be kept for a prolonged period under the influence of anæsthetics. The possibility of removing, by means of the écraseur, growths which are only accessible with difficulty, must be admitted; and it is thus well suited for the extirpation of tumors or growths of the rectum, vagina, uterus and pharynx. There are, however, also disadvantages to be taken into consideration, such as the impossibility of obtaining primary union, or of maintaining a cutaneous covering over the wound, the prolonged duration of the operation and the impossibility of following tumors which have their bases placed within the interstices of muscles or bones.

The rational practitioner will, therefore, confine this operation within narrower limits than have been sometimes assigned to it. It is indicated: 1. In all cases in which a great hæmorrhage, or one which there may be difficulty in arresting, is to be feared. For example, in the case of the highly vascular tumors, or in organs which have become abnormally vascular, in persons who have little blood to spare or who are liable to hæmorrhagic action, in new-born infants, when the means for arresting hæmorrhage are not attainable or are not easily applied, and when even a slight loss of blood during an operation may be dangerous, as in laryngeal polypi. 2. When the employment of the hand, guided by the eye, is more or less difficult or impossible, as in uterine fibroid and polypus of the larynx. 3. When no ill consequence is to be feared from the prolongation of the operation. 4. When the cutaneous covering does not require to be preserved. It is, therefore, better adapted for submucous and pediculated tumors than for subcutaneous and broadly-rooted tumors. 5. When contraction from cicatrices will not induce deformity or disturbance of function. 6. When healing by primary intention is not desired. In all cases wherein one or more of the above indications do not prevail, the knife is to be preferred, as an easier, more expeditious, and less mechanical method, and one which is often more certain and less dangerous in its action.—*Medicinische Zeitung Russlands*, No. 21.

PHILADELPHIA COUNTY MEDICAL SOCIETY.—(Reported by W. B. Atkinson, M. D., Recording Secretary.)—*Wednesday Evening, October* 10.—*Dr. Isaac Remington, President.*—Subject for Discussion: OPIUM AS A THERAPEUTIC AGENT. (Continued from November number.)—Of special diseases in which opium is more particularly employed, I will mention some of the more prominent, without, however, confining myself to any strict order.

In the treatment of *neuralgia*, great relief is often obtained by a liberal and judicious use of opium. But here, again, the real origin of the affection is frequently obscure, and whilst many cases (no doubt of eccentric character) are susceptible of amelioration or cure, others, owing their origin to causes of another kind, prove intractable to this and all other medication, and admit only of temporary relief. In such cases, relief has been obtained by the injection of the cellular tissue over the track of the nerve affected, after the failure of the ordinary mode. The utility of opium in the management of *delirium tremens*, has been hitherto generally conceded. The chief difference of opinion was, and yet is, in determining the proper dose and the frequency of its repetition. Here practitioners are still at variance, for whilst the rule with some is to direct opium until sleep is obtained, others are disposed to hesitate after having fruitlessly given a number of very large doses; and a third set are content with administering very small doses, and that with watchful solicitude as to the effect. The number of cases of the affection in question in my own practice, has been too limited to enable me to discriminate which of these modes of treatment is most consonant with the pathology of this disease, or most conducive to the welfare of the patient. Whilst it is certain that persons have recovered from these attacks after taking an amount of opium just as large as those we read of, it is, perhaps, not so clear that they recovered in virtue of these inordinate doses. Constitutions capable of resisting the operation of such an amount of opium as we both read of and know of, may fairly be supposed to possess no small share of recuperative energy. Be this as it may, the practice cannot be deemed otherwise than hazardous, and the patient, no doubt, from time to time, suffers the disastrous results attaching to this excessive use of the medicine. A moderate and guarded employment of opium in instances of this sort, aided, as the exigencies of each case may seem to demand, by alcoholic stimulus, will probably exhibit a more satisfactory statistical result. Sleep has, in cases of this kind (as in many analogous states of the brain and nervous system), often followed the sudden suspension of the medicine.

In *various spasmodic affections*, external or internal, depending for their exciting cause upon excessive pain, opium affords the quickest and surest relief. Where, however, no such exciting cause is discoverable, caution is to be observed, with a view to determine, as nearly as possible, whether the irritation productive of convulsion be of peripheric or centric origin, as in the former only can much benefit from treatment be expected. Of this particular class, the convulsions of children, occurring generally between six months and three or four years of age, are those most frequently demanding our attention. They are nearly always caused by the irritation of teething, or by intestinal irritation, from improper or undigested food. These convulsions generally assail suddenly, without apparent previous indisposition, though, in other cases, fever, with slight twitchings of the tendons, precede for a short time. In either case, after the evacuation of the stomach and bowels by an antispasmodic purgative or injection, if the case be pressing, and giving proper attention to the state of the gums, an injection of laudanum and starch has often been productive of more benefit in quieting irritation and obviating returns of the convulsive movements than I have usually seen from bleeding, leeching, and the various topical applications generally resorted to in such attacks, although these may be necessary precautionary measures, in view of the tender organization of the brain in children, and its remarkable proneness to disease.

In the *modus operandi* of opium in relieving these and analogous affections of the nervous system, we may see a full exemplification of its extraordinary sedative and anodyne powers, when properly employed. Nor are these powers confined to any one of the three great divisions of the nervous system. For, in the affections alluded to, it is sometimes the brain, sometimes the spinal marrow, and at other times the nerves and centers of organic life that are most implicated.

Now, whilst it would be exceedingly difficult to define the precise extent to which any one of these systems might be involved, as compared with another, and still more difficult or impossible to appreciate the *correlative movements of these different systems* in a given case of disease, it may, perhaps, be doubted whether, in pathological states, we are not in the habit of attaching too much importance to the brain, and too little to the centers and nerves of organic life. The different affections, to which reference has been made, are chiefly eccentric or peripheral in their origin, *and it is with this peripheral system that the sympathetic nerves and ganglia have their closest relation;* and the inference, we think, a rational one, that the sedative and anodyne power of opium is exerted quite as much or more in allaying morbid irritability in this system, than in merely blunting the perception of this morbid condition in the brain.—*Medical and Surgical Reporter.*

USE OF ASARUM IN ALCOHOLISM.—*By Dr. Smirnoff.*—[This plant is of the order Aristolochiaceæ. It was formerly employed as an emetic, and as an errhine. The variety named canadense is known as Canada snake root, or wild ginger. That in the shops is Europæum.]

Dr. Smirnoff states that he has become convinced by repeated trials, that the *asarum Europæum* well deserves the reputation it has obtained in Russia of being an excellent remedy for the effects of drinking. The influence of a continuous abuse of alcoholic drinks is first exerted locally, but afterwards dyspepsia is produced: and the nutrition and functions of the entire economy, especially of the central portions of the nervous system, becoming interfered with, the blood itself being loaded with an injurious foreign material, the *dycrasia potatorum* is at last completely established. The asarum fulfils various indications, acting beneficially on the alimentary canal in those cases in which the digestive powers are so much at fault. Its aromatic principle confers upon it a stomachic power, and regulates the condition of the intestinal discharges, producing vomiting and purging, when given in large doses. Its most beneficial action, however, is manifested on the defective appetite, and by its counteracting the invincible longing for alcohol. The horrible sensations with which the drinker awakes in the morning, and which impel him to seek temporary and delusive relief from renewed libations, are much blunted and mitigated by means of a glass of strong infusion of asaram and some other nervine—*e. g.*, valerian. Its immediate effect is often to produce vomiting, and sometimes purging; but the painful sensations at the epigastrium undergo relief, and the appetite becomes invigorated. Persons who have been long habituated to alcoholic drinks cannot, however, have these suddenly suppressed with impunity; and in such cases the author gives the asarum in brandy, applying at the same time a blister or an issue to the pit of the stomach. By this means the normal activity of the stomach becomes excited, and the longing for alcohol diminished. The author, however, cannot agree with those who would still allow a small quantity of spirits to habitual drinkers, even when the morbid desire for it has become appeased. The continuous use of a decoction of asarum, even when it does not succeed in extinguishing the desire for alcohol, always supports the powers of the patient; and it is remarkable in some cases in which the individuals have been long accustomed to periodical intervals of drunkenness, ending in delirium tremens, how much longer these intervals will become, and how much less likely delirium tremens is to recur. The patients themselves are surprised at the comparative impunity with which they can continue their drinking. The author prescribes three or four glasses a day of an infusion made with ℥iij, of asarum root, ʒj of valerian root, and ℥½ of orange peel, but he does not state the quantity of water employed. In cases of drunkeness another formula is composed of decoction of asarum (made by boiling from ʒ½ to ℥j of the root) ℥vj. tinct. of valerian ʒij. to ʒiij., Sydenham's laudanum gtt. xij., syrup of orange peel, ℥½. A tablespoonful of this is taken every two hours. He finds from two to five grains of bismuth taken four times a day a valuable adjunct. He has also found the following popular Russian remedy of service in cases of drunkenness:—℞. Ammon. carb., ℥½; aceti vini, ℔j.; oxymel scill., ℥½. Two tablespoonsful every two hours.—*Med. Zeit. Russland*, 1859, No. 8. *Am. Med. Gazette.*

CAN A WOMAN REMAIN IGNORANT OF HER PREGNANCY UP TO THE TIME OF HER DELIVERY?—Sir: In the year 1852 I attended a young married woman, aged nineteen, and delivered her of her first child under the following circumstances: I was hurriedly sent for to visit her, it being supposed that she was laboring under inflammation of the bowels. On my arrival I found her free from all inflammatory symptoms; but I had not been long with her before she had a violent labor pain; another and another followed. I examined her abdomen, which I found somewhat enlarged. I took her mother aside, and expressed my fears that the patient would miscarry. She smiled, and said she was sure her daughter was not pregnant at all. She had never had any symptom of it, had never felt any motion as of a child in the womb, and no preparations had been or were making in the way of providing clothes for the infant. I administered an opiate, with the view to prevent the miscarriage ; but on my return two hours afterwards, I found labor had progressed steadily ; she was soon delivered of an exceedingly small infant, apparently still-born ; but by the use of the hot and cold bath alternately, I had the satisfaction of handing over to its unbelieving grandmother a living child, and I may add that it is now a strong, healthy boy, eight years old. This was certainly the smallest living infant I ever saw ; it could not have been, from its appearance, more than six months and-a-half in utero.

On cross-examining the mother of the child she assured me that she had not the most remote idea that she was pregnant, and had never felt any movement or other peculiar feeling in the abdomen. The enlargement of the belly, (which was not very great) she had never paid any regard to. Having been very delicate before her marriage, her catamenia had been extremely irregular, so that no exact data could be obtained as to the duration of the uterine life of the infant. The patient moved in the middle ranks of life, and was in every respect trustworthy, and from what I know of her I feel assured she would conceal nothing from me. Being a married woman she had no reason to conceal anything, but, on the contrary, felt proud of her offspring. In further confirmation of the unexpected nature of the event, I may mention that as it happened on the 1st of April, considerable difficulty was experienced with some of her friends in convincing them of its truth.

This case then, I think, proves that a woman *can* remain in ignorance of her pregnancy up to the *very* time

of her delivery, and is perhaps worthy of a place in your columns. R. SCOTT ORR, M. D.
—*Lancet—Cinncinatti Med. and Surg. News.*

WHITEWASH.—Whitewash is one of the most valuable articles in the world, when properly applied. It prevents not only the decay of wood, but conduces greatly to the healthiness of all buildings, whether of wood or stone. Outbuildings and fences, when not painted, should be supplied once or twice every year with a good coat of whitewash, which should be prepared in the following way: Take a clean, water-tight barrel or other suitable cask, and put into it half a bushel of lime. Slack it by pouring water over it, boiling hot, and in sufficient quantity to cover it five inches deep, and stir it briskly till thoroughly slaked. When the slaking has been effected, dissolve it in water, and add two pounds of sulphate of zinc, and one of common salt. These will cause the wash to harden, and prevent its cracking, which gives an unseemly appearance to the work. If desirable, a beautiful cream color may be communicated to the above wash, by adding three pounds of yellow ochre; or a good pearl or lead color, by the addition of lamp, vine, or ivory black. For fawn color, add four pounds umber—Turkish or American (the latter is the cheapest)—one pound Indian red and one pound common lampblack. For common stone color, add four pounds raw umber and two pounds lampblack.

This wash may be applied with a common whitewash brush, and will be found much superior, both in appearance and durability, to common whitewash.—*Louisville Medical News.*

ADVANTAGES OF THE USE OF GLYCERINE IN SURGERY.—M. Demarquay, a distinguished hospital surgeon of Paris, has used, and recommends, glycerine in ulcers and fistulous tracts, along which latter it should be injected to fulfill the following indicates, viz: to diminish excessive suppuration, cleanse the secreting surfaces, modify the noxious properties of the pus, prevent the stagnation of fluids, or simply to excite the pyogenic membrane, and bring about cicatrization.

Glycerine may be advantageously used in deep abscesses connected with diseased bone, and in such cases the author combines glycerine with iodine, because the former is, alcohol excepted, the solvent of the latter, and penetrates very powerfully, reaching to a great depth. Glycerine may also be employed in the dressing of scorbutic, scrofulous, syphilitic, and atonic ulcers, either alone or as preparatory to another kind of treatment, viz: compression with straps of adhesive plaster. When used for ulcerated chilblains, glycerine should be extremely pure, because it is apt, when not quite free from foreign substances, to excite very painful inflammation.—*Drug Circular.*

A French paper tells us that the *savans* of Paris are experimenting on the tenacity of life commonly attributed to toads by inclosing several specimens in plaster of Paris, where they will be kept for a series of years. The toads might say to the *savans* as the frogs in the fable said to the boys: "Though fun for you it is death for us."

NEW ORLEANS

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A CLINICAL LECTURE

ON A CASE OF DISEASE OF THE HEART AND EPILEPSY,

Delivered in the N. O. Charity Hospital,

BY AUSTIN FLINT, M. D.,

Prof. of Clinical Medicine and Medical Pathology, in the N. O. School of Medicine.

Gentlemen ; I shall presently introduce into the amphitheatre a patient, from one of my wards, affected with disease of the heart. I make this statement before the patient comes before you, but it is not so desirable to avoid naming the disease in his hearing as you may suppose. Patients with organic disease of the heart, as a rule, are but little moved by the announcement of the fact. They generally manifest an indifference which is in striking contrast with the intense anxiety and apprehensions incident to merely functional disorder. It is curious thus to observe different states of the mind belonging to the natural history of different affections. You are doubtless aware of the hopefulness and buoyancy of mind which characterize pulmonary tuberculosis. The mental state in organic disease of the heart does not resemble that in phthisis; the patient is not kept up by a delusive expectation of recovery, but he appears to be unconcerned on the subject of the diagnosis, showing neither surprise nor depression when he is made acquainted with it. This is the more remarkable, because patients with organic disease of the heart often have had no suspicion of the fact prior to its being ascertained. In this respect, too, the difference between cases of organic disease and functional disorder is marked. Patients affected with merely functional disorder have their attention concentrated on the heart, and are with difficulty persuaded that they have not organic disease; while patients really affected with organic disease are disposed to attribute their symptoms to an affection of some other organ; for example, the liver, or the stomach.

The case which will form the subject of this lecture is interesting and instructive, as regards several points pertaining to the previous history, the present symptoms, and the physical signs.

The first point to which I will call your attention is the occurrence of rheumatism several years before any symptoms of organic disease of the heart became developed. The patient, a carpenter, aged about thirty-two, was admitted into the hospital a fortnight ago. He states that he had rheumatism six years ago; that nearly all the joints were successively affected, and that he was confined to the bed for six months. The rheumatism must have been severe, and its duration was unusually long. He does not recollect that at that time he had any pain in the chest. In a large majority of the cases of disease of the heart, involving valvular lesions, we find, as in this instance, that the patient, at some period more or less remote, has had articular rheumatism. And it is fair to attribute the heart disease in these cases to an endocarditis developed in connection with the rheumatism. Sometimes the patient is aware that there was some trouble in the chest at the time of the rheumatism, but, oftener, he cannot recollect the existence of any thoracic symptoms. The endocarditis is often completely latent as regards symptoms, and, in fact, very rarely gives rise to syptomatic phenomena distinctly referable to the heart. Hence, we can understand why the frequent occurrence of endocarditis in connection with acute rheumatism has only been recently known. Its occurrence cannot be ascertained except by means of physical signs, and these have been made available only within a few years.

The patient states that about six months ago he began to notice a deficiency of breath on exercise. This has progressively increased, but it did not occasion sufficient inconvenience to oblige him to quit work until a few days before he entered the hospital. Such is the account which patients, especially of the so-called laboring classes, frequently give when they first come to a hospital or a physician with disease of the heart. The first symptom is want of breath. This is at first slight, and they do not give to it much attention. It gradually increases, and labor involving muscular exertion becomes difficult. Finally they find themselves unable to work longer, and then they seek for medical relief. Palpitation is sometimes complained of, but this symptom is often wanting, as in the present case. Our patient has not suspected that the heart is at fault. Naturally enough he has inferred from the want of breath on exercise, that there is something wrong in the breathing apparatus, and he says he thought he was falling into a consumption.

I now introduce the patient. He is up and dressed, and able to walk about without difficulty. He disclaims, indeed, being sick, and says he only lacks wind to enable him to work. When he is quiet or exercises moderately, there is no trouble in breathing whatever. The respirations are not accelerated nor labored. As you perceive. he is not emaciated, and does not present a notably morbid aspect. His appetite is excellent, and the bowels are regular. He has a slight cough, with a small expectoration. But if you examine the countenance closely, you will observe certain appearances which are significant. The prolabia are distinctly livid. The mucous membrane within the mouth is of a dark red color, and the face generally has a dusky hue. There is also slight tumidity around the eyes. What occasions this discoloration ? It is due either to deficient oxygenation of the blood, or to congestion of the systemic venous capillaries, or to both these conditions combined. If caused by the first of these conditions, viz : deficient oxygenation of the blood, should we not have associated with it dyspnœa, or suffering from the want of more oxygen ? Not necessarily. It is a curious fact that the system is sometimes remarkably tolerant of blood deficient in oxygen. This is more likely to be the case when the condition has been very gradually brought about, as it has been in this instance. But there is reason to think, as will presently appear, that the lividity in this case is due in a great measure, if not chiefly, to the stasis of blood in the veins. If so, the condition is that which is supposed to give rise to the lividity in certain congenital malformations of the heart, constituting the blue disease or cyanosis.

Directing attention now to the lower extremities, the body generally, and the cavities of the abdomen and chest, we find that the patient is affected, in a moderate degree, with general dropsy. The feet and ankles, as you see, are somewhat swelled, and pit on pressure. Exposing the belly, you notice a deep indentation caused by the waistband of his pantaloons. This shows œdema of the abdominal walls. Making pressure over the sternum with the finger, the pitting distinctive of œdema is here apparent. The peritoneal sac contains some liquid. I make percussion as the patient stands, and I find dullness extending from the pubis to the umbilicus, and tympanitic resonance due to gas in the intestines above a horizontal line drawn through the umbilicus. Causing the patient to lie down on the back, I find the dullness below the umbilicus has disappeared, and the tympanitic resonance extends quite to the pubis. This shows the presence of liquid, which changes its level with the change of position. It is more reliable evidence of dropsical effusion into the peritoneum than a sense of fluctuation ; and the latter in this case is not very available, owing to the œdematous state of the abdominal walls. By precisely the same method of examination, we have evidence of a moderate amount of effusion into the pleural cavities. Percussing from above downward when the body is in a vertical position, we have the pulmonary resonance extending a little below the nipple ; then percussing when the patient is recumbent, on the back, the pulmonary resonance is found to extend nearly to the bottom of the chest. This shows the presence of liquid, which obeys the laws of gravitation in this situation as it does in the abdominal cavity.

We have already obtained certain facts which point significantly to cordiac disease. Lividity and general dropsy constitute ground for strong suspicions as to the seat of the disease, but they are not adequate to a positive diagnosis. We must interrogate the central organ of the circulation by means of auscultation, percussion and palpation. I seek first for the apex-beat of the heart. I find it with difficulty, the impulse is so extremely feeble. It is in the sixth intercostal space, about half an inch without the nipple. It is therefore lowered and carried to the left of its normal situation. I apply the stethoscope over the apex, and I discover a very distinct and rather rough murmur, which just precedes the first or systolic sound of the heart. This murmur ends abruptly and completely when the first or systolic sound occurs. There is no murmur accompanying or following the first sound. The only murmur heard in this situation is the pre-systolic murmur. This murmur is heard only within a circumscribed space over and within the apex. It is not heard without the apex. This is a mitral direct murmur; so called because it is produced by the direct current of blood through the mitral orifice from the auricle to the ventricle. It is rather a rare murmur, but not so rare as some writers have stated. The reason why it is considered to occur so seldom is, I believe, that it is often confounded with the mitral regurgitant murmur—a murmur due to the current of blood from the ventricle to the auricle—a regurgitant current. Now, what does this mitral direct murmur signify? It denotes a lesion of some kind seated at the mitral orifice, and generally a lesion which involves obstruction at this orifice. The murmur, in this case, has a peculiar quality. It resembles the blubbering sound produced when air is expelled through the mouth, the lips being passively thrown into vibration. Hence, I have been accustomed to style the murmur a blubbering murmur. I suspect that it is due to union of the two curtains of the mitral valve at their sides, leaving a contracted button-hole aperture—a kind of lesion which we know occurs not infrequently.

Is this the only murmur in the case? On careful auscultation I discover a second murmur near the left margin of the sternum, between the third and fourth ribs. It is a feeble, soft murmur which accompanies the second or diastolic sound of the heart. This is an aortic regurgitant murmur. It shows some insufficiency of the aortic valve, and consequent regurgitation from the aorta into the ventricle after the contraction of the latter, when the recoil of the arterial coats takes place, giving rise to the second sound of the heart.

Listening now to the sounds of the heart, I find the first or systolic sound over the apex, distinct, but short and valvular, like the second sound ; the element of impulsion is wanting. The second sound at the base on the left side of the sternum is notably more intense than on the right side ; showing either the sound due to the pulmonic valve to be increased, or that due to the aortic valve to be weakened, or that both these alterations exist—the latter being probably the true explanation in this case. These are nice points in auscultation, but some of you, as I know, are already familiar with them, and to others, although at present obscure, they will be sufficiently intelligible by-and-bye.

Let me now practice percussion in the præcordia. Percussing on a horizontal line from the sternum, in the direction of the left nipple, marked dullness extends to the latter, and three-fourths of an inch beyond it. I can easily define the boundaries of this dullness, which I indicate on the chest with ink. On the right side percussing on the same horizontal line, the dullness extends about two inches beyond the right margin of the sternum. The heart is evidently enlarged, and the width of the dullness at the base leads me to think that the auricles are especially dilated.

The apex beat of the heart, as we have seen already, is scarcely perceptible. In fact it is more readily seen than felt. There is no heaving of the præcordia, nor is any impulse elsewhere than at the apex to be felt. This fact, taken in connection with the shortness and valvular quality of the first sound, leads me to think that dilatation of the heart predominates over hypertrophy.

The conclusions, then, based on the physical signs developed by the examination, are, that lesions exist at the mitral and aortic orifices—at the latter orifice giving rise to regurgitation, and probably causing obstruction at the former orifice; that the heart is enlarged by predominant dilatation; that the auricles especially are dilated; and that the right ventricle is hypertrophied, augmenting the intensity of the pulmonic second sound. Let us now see how these conclusions accord with another very interesting sign in the case, and also with certain symptoms.

I now cause the patient to lie upon the back, and I will ask you to direct your attention to the left external jugular vein. You see the vein is considerably enlarged and filled with blood. It is much more distended when the patient is recumbent than when he sits or stands. You perceive that the vein pulsates. The pulsation is so marked that it must be apparent to those on the highest benches in the amphitheatre. The pulsation is also felt by the touch; in fact it is quite strong, much stronger than the pulsation in the carotid artery—the latter being felt with some difficulty. Perhaps you are not at once satisfied that the pulsation apparent in the vein is in reality venous. I will prove to you that it is so by a very simple expedient. I now place my finger on the vein at the lower part of the neck, just above the clavicle, and I make pressure sufficient to interrupt the flow of blood in the vein. The pressure is light and entirely insufficient to interrupt the flow of blood through a large artery. You see that I arrest immediately the pulsation, which returns directly my finger is removed. I can arrest it at will by preventing the flow of blood in the vessel. This suffices to prove that it is a venous not an arterial pulsation. It is due to a retrograde current of blood through the venæ cavæ, and the larger veins which are tributary thereto. It is apparent on the right as well as on the left side of the neck, but, contrary to the rule, is much more marked on the left side.

This venous pulse, is of course, caused by the heart's action. Now, is it caused by the contraction of the right auricle or the right ventricle? It must be caused by one or the other, because the jugular vein is in direct communication only with the right side of the heart. Clinical observation shows that it may be produced either by the right auricle or the right ventricle. Can we determine which? Nothing is easier. If produced by the contraction of the right ventricle, it must seem simultaneously or nearly so with the carotid pulse, because the two ventricles contract synchronously; but if produced by the contraction of the auricle, it should occur just before the carotid pulse, because observation has taught us that the auricles contract just before the contraction of the ventricles. I have only then to place my finger on the carotid and watch the venous pulsation in order to determine the relation to each other in which they occur. I satisfy myself that the venous pulsation just precedes the carotid pulse—a conclusion which I had not expected, because, from the strength of the latter, I had thought to have found it produced by the ventricle. It is, then, an auricular venous pulse. I have known both an auricular and a ventricular venous pulse to be present, and in this case, on close examination, I can perceive occassionally a slight undulation occurring simultaneously with the carotid pulse, and this I suppose to be due to the contraction of the right ventricle.

What is the significance of this auricular venous pulse? It shows that the right ventricle is distended, so that when when the auricle contracts, the blood, not finding ready entrance into the ventricle, regurgitates into the large veins opening into the auricle. A ventricular venous pulse would show regurgitation from the right ventricle into the auricle when the ventricle contracts.

It is interesting to see how the condition of the right cavities of the heart, as indicated by the pulsation and fullness of the veins of the neck, harmonizes with certain symptoms in this case. The right cavities are overdistended with blood, arising, as we may rationally infer, from obstruction at the mitral orifice. This induces congestion of the systemic venous system generally. Hence, we have in part an explanation of the lividity or cyanosis to which I have called your attention. And it is this venous congestion, in a great measure, which has induced the general dropsy which we have seen to exist in the case. This latter symptom has occurred in accordance with a general law pertaining to cardiac disease, viz: it takes place, whenever, in the progress of the disease, the right cavities become permanently so distended as to involve a considerable obstacle to the return of blood to the heart, and consequently a certain amount of venous congestion. The dropsy arises from the mechanical distension of the veins, although other circumstances, such as the condition of the blood itself, for example, may contribute to it.

I have not yet spoken of the pulse in this case. This symptom is significant. It is extremely small and weak. The radial artery feels under the finger like a thread, and the carotid is not readily felt. The contrast between the venous and the arterial pulse in the neck is striking. We can readily account for this state of the arterial pulse, by supposing the existence of considerable mitral obstruction. This obstruction, while it leads to over-repletion of the left auricle, and the right cavities of the heart, prevents the left ventricle from receiving a proper supply of blood. The small quantity of blood expelled by the left ventricle, with each contraction, necessarily involves smallness and weakness of the pulse. The pulse, under these circumstances, also is apt to be irregular and unequal.

I will now dismiss the patient, and then offer a few remarks further on the case.

The prognosis, I need hardly say, is unfavorable. There is but little prospect that, as regards the affection of the heart, the patient will be benefited. I shall prescribe a hydrogogue cathartic with a view to diminish somewhat the water in the blood, and thereby perhaps relieve the general dropsy. It is doubtful, however, whether this object will be fulfilled. After this the indications will be to place the patient on a solid, dry, nutritious diet; to endeavor to increase the vigor of the heart's action, by tonic remedies; to keep the bowels open, and maintain free action of the kidneys. All that we can hope to accomplish is to postpone the fatal termination. But the probability is that, whatever measures are pursued, the dropsy will increase, and the case will end fatally at a period not very remote.

This patient furnishes us with an example, not only of organic disease of the heart, but of another serious affection, viz: epilepsy. He states that he has been subject to epileptic fits for the last three years, and that they have occurred sometimes after an interval of a month, and sometimes every two weeks. I suppose most of you are acquainted with the phenomena which characterize epileptic paroxysms. The diagnostic points of the form usually met with in practice, are the sudden occurrence of coma and convulsions, sometimes preceded by certain sensations which warn the patient of the approach of a fit, and sometimes without any warning ; a cry, generally uttered at the moment of the attack, which is sometimes remarkably loud and piercing ; clonic convulsions often, extremely violent, extending more or less over the body; spasm of the laryngeal muscles, occasioning difficulty of breathing, and consequently, congestion of the face and lividity; convulsive movements of the masticatory muscles, in consequence of which, foamy saliva escapes from the mouth ; thrusting of the tongue between the teeth, and wounding of that organ, which causes blood frequently to be mixed with the foam on the lips. The paroxysm lasts usually from three to five minutes, when it passes off, leaving the patient more or less fatigued, frequently disposed to sleep, sometimes in a condition approaching to coma, and occassionally delirious. These are the characters by which an epileptic paroxysm is to be distinguished. We have no difficulty in recognizing the affection when we have the opportunity of witnessing the attack ; but it will very often happen that we have not this opportunity. The patient, or the friends, simply tell us that he is subject to epilepsy; and in order to be assured that the fits are epileptic we have to obtain enough of the history to ascertain whether a sufficient number of the diagnostic characters are present. The friends may be able to furnish this information, but the patient cannot, for he is wholly unconscious of what occurs during the paroxysm. He only knows that he has had a period of unconsciousness, and he may not even know this when, as not unfrequently happens, the attack occurs during the sleep. When we have no other source of information than the patient's statement, we can often confirm it by an examination of the tongue. This organ is apt to be wounded by the convulsive movements of the masticatory muscles, so severely as to leave permanent marks of the injuries it receives, in the shape of fissures, which are the cicatrized wounds. In this case, having at first only the statement of the patient, I was led to examine the tongue, and the dorsal surface presented several fissures, which showed the statement to be correct. But the fact was substantiated by the occurrence of several paroxysms a few days after his admission.

Has the epilepsy in this case any pathological connection with the disease of the heart? I suppose not; for out of a pretty large number of cases of disease of the heart which I have collected, I do not recall another instance in which epilepsy existed. It has been surmised that the paroxyms of epilepsy conduce to the development of hypertrophy and dilatation of the heart; but clinical observation does not furnish facts confirmatory of this surmise. In this case it is altogether probable that the disease of the heart preceded the development of epilepsy, although the latter disease appeared before the patient began to experience inconvenience from the former. In view of the infrequency with which the two affections are found to be associated, we must conclude that the concurrence is accidental.

With respect to the pathology of epilepsy, it is far easier to say what it is not, than to say what is the essential morbid condition on which it depends. It is customary to attribute the paroxysms to cerebral congestion, but we may say positively that this is not a correct explanation. Paroxysms occur often where there is no evidence that cerebral congestion preceded their occurrence ; and we know that the paroxysms must induce great congestion, so that, according to this theory, the paroxysm ought to continue rather than terminate after the lapse of a few moments. Moreover, congestion of the brain undoubtedly occurs often enough in connection with diseases of the heart and other affections, without giving rise to epilepsy. Congestion, as applied to different organs, is a very convenient term to cover up our want of positive knowledge. I conceive it to be far better always to admit our ignorance. We are nearer the truth when we properly take such a position, than when we commit ourselves to an erroneous hypothesis. In the former case, we have only to learn when the truth is developed ; in the latter case, we have to unlearn before we can learn, and experience teaches that it is far more difficult to unlearn than to learn. Even if congestion were an essential morbid condition, it could not be considered to be the primary condition. Some other condition must precede the congestion and give rise to it. The fact is, the pathology of epilepsy, with our present knowledge, is unknown.

The seat of the unknown morbid condition which constitutes the disease, is a mooted point. Some refer it to the brain ; some (following Marshall Hall) think it is seated in the spinal cord ; and recently a distinguished anatomist in

Holland regards it as an affection of the medulla oblongata. Professor Van der Kolk, just referred to, is the author of a work entitled, "The Minute Structure and Functions of the Spinal Cord and Medulla Oblongata, and on the Proximate Cause and Rational Treatment of Epilepsy," a translation of which has recently been published by the new Sydenham Society of London. As a deduction from the minute structure and functions of the medulla oblongata, he concludes that this part of the nervous system is the point of departure for the centric influences, giving rise to epileptic and other convulsions. But he also claims to have ascertained, by the examination of this part after death in several cases of epilepsy, that it is the seat of certain morbid alterations, viz., enlargement of the capillary vessels, hardening from an albuminous exudation, and sometimes softening from fatty degeneration. His pathology of the disease is that, in the first place, it consists in an abnormal sensibility and excitability of the medulla oblongata, and hence, various eccentric influences may excite epileptic paroxysms. Then, as results of the congestions incident to the repetitions of the paroxysms, the organic changes just mentioned occur—the vessels first becoming dilated, and afterward exudation and fatty degeneration taking place.

I give this as the most recent endeavor to localize the morbid condition in epilepsy, and define its pathological character. The minute, careful and extended observations of the author entitle his conclusions to respectful consideration. Whether they have advanced our knowledge of the pathology of the disease, remains to be determined by further researches. Assuming the correctness of the views held by Professor Van der Kolk, they are not without practical value. They indicate the importance of combatting by local measures the state of morbid sensibility and excitability in the medulla oblongata before a sufficient number of paroxysms have occurred to lead to the structural changes which he describes. In this case the disease has existed already for three years, and it may reasonably be inferred that these changes have already taken place. Nevertheless, I have caused a seton to be inserted high up in the neck, a measure which Professor Van der Kolk advises.

With regard to the treatment of epilepsy, I will simply say that I am not prepared to advocate any remedy or remedies as specially applicable. Some years ago, a French author of a prize essay on the subject, Herpin, reported several cases in which the oxide of zinc had apparently effected a cure, when prescribed early in the disease and continued in pretty large doses for a considerable period. I adopted this treatment in several cases in which the disease had not been of long duration, and carried it out faithfully and perseveringly, but without any good result ; hence, I did not feel sufficient encouragement to try the lactate of zinc, which the same author subsequently advocated as a more efficient remedy than the oxide.

The coëxistence of epilepsy and disease of the heart, in this case, renders the prognosis even more grave than if the latter existed alone. The disturbance of the circulation of the heart's action incident to the epileptic convulsions, renders them not devoid of danger ; and it would not be surprising if he should die in one of the paroxysms.

A COURSE OF PRACTICAL LECTURES

ON URINE, URINARY DEPOSITS, AND ON THE RELATIONS OF MORBID URINE TO CONSTITUTIONAL DISEASE:

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LECTURE II.

GENTLEMEN: I purpose in our present lecture to take into consideration certain physical properties of the urine yet unexamined, viz: the color, consistence and reäctions of the urine.

Normal or healthy urine is, as you see, an amber colored liquid—the color depending upon the presence of certain constituents, whose composition is not yet thoroughly explained, but which are, without doubt, derived from the disintegration of the red corpuscles of the blood. The quantity of this coloring matter, and consequently the tint of the urine, is frequently connected with certain pathological changes, and an acquaintance with the colors of the urine is necessary, therefore, to the practitioner of medicine, as it frequently assists him in elucidating many of the phases of disease. The normal coloring matter of the urine was first demonstrated by Heller, and he considers it may be divided into two distinct principles, one called urophœin, and the other called uroxanthin. Urophiœin, according to Heller, is the principle on which the color and smell of healthy urine depend. Its presence is best shown by pouring a measured quantity of sulphuric acid into a test-tube, and slowly dropping on it half its volume of urine; on stirring the two together, a strong brown coloration ensues. Uroxanthin is rendered evident by adding urine to concentrated hydrochloric acid, as in the former experiment, when, after some time, a reddish coloration with a tinge of violet, is produced, owing to the decomposition of the uroxanthin into what is termed urorhodin or uroglaucin. The coloring matters, although giving, as you see, the reactions I have described are, after all, only hypothetical, and it is possible that the colors may depend upon the actions of these strong acids, upon the varied organic compounds in the urine. Dr. Golding Bird, to whom we owe so much of what relates to the physiology of the urine, demonstrated the existence of another principle, which has an important bearing on diagnosis. If I take this specimen of healthy urine, and pouring a small quantity of it into a test-tube, add to it about a drachm of hydrochloric acid, and boil it over the spirit lamp, you see that it becomes of a reddish hue—the color deepening as the boiling proceeds. The coloring principle thus brought out under the action of hydrochloric acid, Dr. Bird called purpurine, and considered it the pigment which produces the peculiar flesh-color we so often see in deposits, consisting of the urate of ammonia. Purpurine is remarkable for the large quantity of carbon it contains, its composition being in one hundred parts:

Carbon	58.43
Hydrogen	5.16
Nitrogen	8.83
Oxygen	27.58
	100.00

If we compare the composition of purpurine with bile, we shall be struck with the similar composition, the analysis of the bile, as given by Kemp, and endorsed by Dumas, is as follows:

Carbon	59.6
Hydrogen	11.8
Nitrogen	6.0
Oxygen	22.6
	100.0

The serum of blood contains fifty-two per cent. of carbon, and we thus observe that this urinary pigment coïncides remarkably with these two bodies in the large amount of carbon it contains. In connection with this I may tell you, that according to some recent researches of Professor Harley, of London, the coloring matter of the urine is a resinous body, soluble in ether, and agreeing in many of its characters with the biliary resins. The pathological indications of urine containing purpurine in excess are exceedingly useful. Its presence in quantity always intimates a defective action of those organs whose special function is to depurate the blood of carbon, and therefore its existence always shows mischief (functional or organic) in the liver or lungs. It tells us that the kidneys are acting vicariously for these organs, and the intensity of color produced by the addition of hydrochloric acid and boiling, is directly as the quantity of purpurine present in the urine. By recollecting this, we may often gain assistance in the diagnosis of doubtful cases of dropsy. In dropsy depending on hepatic disease, purpurine is always present in the urine in excess; whereas, in simple peritoneal dropsy, no such amount exists.

The color of the urine varies very much in disease; thus, in acute diseases, where rapid metamorphoses of tissue is taking place, and where active disintegration of the blood corpuscles is occurring, a large amount of coloring matter is produced, and tints varying from a reddish yellow to a deep red make their appearance; conversely, in chronic diseases the urine is usually pale—sometimes, as in cases of anæmia, almost colorless, and sometimes, as where cystine exists, of a greenish hue.

The urine occasionally presents a yellowish or greenish yellow color: this frequently indicates the presence of bile, the test for which I will show you when we consider the pathological conditions of the urine. Blood also, when it exists in the urine, produces a reddish or brownish color. In two instances I have seen the urine of a blackish color; in both cases creosote had been given internally, and in being removed by the kidneys, had produced this singular condition of the urine.

It is a matter of importance for you to recollect that many medicinal and alimentary substances, when taken internally, will produce a peculiar color in the urine, and may excite apprehension unless the cause of the tint be properly understood. Thus, the urine before you, has, as you see, a deep yellow hue, and stains paper or linen of an intense yellow color, in this respect resembling urine containing bile. It however does not contain a particle, but has been secreted by a child to whom I have administered santonine. You will therefore recollect that santonine will produce a distinct and vivid yellow color in the urine, and you may readily test it by adding to the urine some solution of ammonia, when, as you see, the yellow changes to a deep red. This test is, therefore, indicative of santonine.

Rhubarb also frequently colors the urine of a dark orange, resembling bilious urine. This also may be dedetected by ammonia, which changes it a vivid crimson. Many other substances, as logwood, coffee, senna, etc., darken the urine, and, as a rule, may be distinguished from the true coloring matter of the urine by the action of nitric acid, which changes the vegetable color to a bright yellow, while the animal pigment, if changed at all, becomes darkened by the action of the reägent.

Another circumstance which it is necessary for you to observe, is, that healthy urine is invariably free from sediment. After standing for some time, it should only deposit a slight cloud, which, as you see, the microscope resolves into a few globules of mucus, and a minute amount of epithelial scales. A visible deposit is *always pathological.* Whenever this exists, you should always inquire whether the urine was turbid when it was passed, or, if clear at that period, what length of time was required for the sediment to fall. Although I have told you that a visible deposit is always indicative of disease, you must not infer the converse, that clearness is necessarily a sign of health. This by no means holds good, as many pathological products, among others, albumen and sugar, produce no alteration as to the clearness of the urine, and many physiological ingredients may exist in abnormal excess, and no visible change occur in the appearance of the fluid.

We will now proceed to examine the reäctions of the urine, and you observe that when I dip this piece of blue litmus paper into it, the paper becomes red. The urine is therefore acid, and this is its normal condition. The cause of the acidity of the urine is still unascertained, and it is probable that in such a complex fluid, more than one may combine to produce the result. The urine always contains a large amount of acid salts, sulphates, phosphates, urates, and frequently many free organic acids, as lactic and hippuric acids, which would also produce a considerable degree of acidity. Dr. Golding Bird considers the reäction of the urine to be due to the acid phosphate of soda, which is formed whenever uric acid decomposes the common or rhombic phosphate of soda. I have here some common tribasic phosphate of soda ($2\,NaO, HO, PO^5$), and you observe its solution in water has an alkaline reäction; I add to it a few grains of uric acid, and warm it gently over the spirit lamp, the uric acid disappears, and you now see the same solution is acid, and reddens blue litmus paper. The cause of this is due to the fact, that the uric acid combines with an equivalent of soda, to form urate of soda, which is the form in which uric acid is usually found in the urine, and an acid phosphate of soda is consequently produced.

The change will be best understood by referring you to the following equation:

$$(2\,NaO, HO, 3\,PO^5) + \bar{U}, HO = NaO, 2\,HO, 3\,PO^5 + NaO, \bar{U}.$$

Dr. Bence Jones found that the intensity of the acid reäction of the urine, was subject to many changes and bore a strong relation to the digestive process. When much acid was in the stomach, the acidity of the urine was increased; and, when digestion was going on, the acidity became lessened, and frequently at this period the urine was neutral. He observed that, "immediately before each meal, the urine showed the highest degree of acidity, and the water passed two, three or more hours after food always showed a lower degree of acidity. The decrease was greatest three hours after breakfast and five or six hours after dinner, when it reached the lowest point. The acidity of the urine then increased until immediately before food, when it again reached the highest point. If no food was taken, the acidity of the urine did not decrease, but remained nearly at the same degree of acidity for twelve hours; but then, directly after food was taken, the acidity fell." Dr. B. Jones also found that animal food produced a greater and more lasting diminution of acidity than vegetable food.

Having now learned that acidity is the normal condition of the urine, let us see whether any modification of this state may occur. Into these two test-glasses containing urine, I dip two slips of red litmus paper, and you will notice that they become blue, showing us that the urine is alkaline. I dry both slips, and you now observe that one has regained its original color ; the other remains permanently blue. The explanation of this phenomenon is simple. In the urine which rendered the test-paper only transiently blue, the alkalinity depended on the volatile alkali or carbonate of ammonia ; in the one which retained its blue color, the alkali was a fixed one, either potash or soda. The recollection of this distinction is important ; for, whereas, urine alkaline from fixed alkali is so, sometimes from a physiological cause, urine alkaline from volatile alkali is *always pathological*, and frequently indicates severe structural disease. One of the chief constituents of urine is a principle called urea, and this, when decomposed, is resolved into carbonate of ammonia. Urine, if allowed to stand for a few days in a warm room, undergoes this change, and the presence of any ferment, or of mucus or pus, will rapidly hasten the decomposition. Now. mucus, in more or less quantity, is always secreted by the lining membrane of the bladder ; and if, from any cause, the bladder cannot discharge its contents, or only partially discharge them, the alkaline fermentation takes place, and the whole of the urea is resolved into carbonate of ammonia. Nay, if only a small quantity of urine undergoes this change and remains in the bladder, it rapidly imprints a similar condition on the fresh urine as soon as the two come in contact. The causes, therefore, which render the urine alkaline and ammoniacal, are—first, any which prevent the thorough expulsion of the contents of the bladder ; secondly, any which, by increasing largely the secretion of mucus, allow the fermentative action to be set up.

Among the first group we may rank stricture of the urethra, enlargement of the prostate gland, paralysis of the bladder, either simple or the result of spinal lesion, and a peculiar form of bladder produced by the mucous membrane protruding through the muscular coat, forming what is termed a sacculated bladder. In certain forms of renal disease, where the urine is detained for a considerable period in the pelvis of the kidney, a similar change takes place. In the second group of causes we may rank the presence of foreign bodies in the bladder, such as calculus which, by exciting inflammation, produce a large secretion of mucus, and thus render the urine alkaline; chronic cystitis, and the irritation set up by the presence of catheter or bougie. Ammoniacal urine almost always exhales a peculiarly disagreeable odor, resembling that of stale fish, and always lets fall a deposit, consisting of crystals of ammoniaco-magnesia phosphates, or triple phosphate as it is termed, and if pus has been secreted by the bladder or kidney, it is always charged with a ropy gelatinous mucus. Urine alkaline, from fixed alkali, never contains triple phosphate, but lets fall an amorphous deposit of phosphate of lime, does not contain much mucus, and, as we have seen, produces a permanent blue on red litmus paper. You must bear in mind that the fixed alkalescence of the urine, may be produced by natural causes : thus, the use of sub-acid fruits, the ingestion of alkaline mineral waters, as the Vichy, Bladon, etc., and the administration of the acetates, citrates, and tartrates of potash or soda will render the urine alkaline in a very short space of time. I have seen the urine alkaline, and produce painful lumbar symptoms, in a person accustomed to take large quantities of magnesia as a remedy for pyrosis, and we learn from Dr. Bence Jones, that a large amount of animal food may not only lessen the natural acidity of the urine, but even, for a time, render it alkaline. When, however, we find that the urine remains persistently alkaline, from the presence of fixed alkali, and this condition has not been induced by the use of any substances capable of effecting this change, it indicates the existence of grave constitutional disease; and we shall frequently find indications of derangement either of the nervous or digestive system.

I have frequently observed that the urine of women suffering from anæmia produced by some drain from the system, is alkaline; and it usually deposits a large quantity of phosphate of lime. You will generally find that long-continued mental anxiety, or overwork, will produce a similar condition.

I may sum up by telling you that when urine is alkaline from volatile alkali, it is *always pathological*, and most frequently indicates local disease of some portion of the genito-urinary apparatus. When alkaline, from fixed alkali, it may be physiological; if pathological, it always leads to the inference of constitutional disease, which may be functional or structural. The subject of alkaline urine will be more particularly considered when I speak of the morbid conditions of the urine. In my next lecture, I shall direct your attention to the generl constituents of healthy urine.

MONTHLY SUMMARY

OF AMERICAN JOURNALISM.

EPILEPSY RESULTING FROM DEFECTIVE ARTIFICIAL TEETH.—In the proceedings of the Suffolk District (Mass.) Medical Society, reported in the Boston *Medical and Surgical Journal*, Nov. 8, 1860, Dr. Garrat related a case of epilepsy in a man, aged forty years. The patient had suffered for several years from carious teeth, which were extracted, and artificial ones substituted. Paralysis of the muscles of the face and tongue resulted. There was a peculiar drawing of the mouth, from which the aura epileptica came, just preceding the convulsions; the tongue was inclined to fall back within the mouth; he was fearful of swallowing it. The false teeth were removed, and the soldering was found discolored. The dentist who had operated previously was consulted, who made a rubber plate; and the patient did not suffer from a return of the epilepsy. The paralysis gradually subsided.

PERTUSSIS RELIEVED BY BELLADONNA.—Dr. Homans, at a meeting of the Suffolk District Medical Society (*Boston Medical and Surgical Journal, Nov.* 8, 1860), stated that he was consulted by a lady who had been suffering with pertussis of two weeks duration. The paroxysm of coughing lasted three quarters of an hour, and had continued thirty to forty hours. Dr. Homans determined to put the patient under the influence of belladonna, pushing the agent until symptoms of poisoning were evident. The drug was exhibited in doses varying from one-eighth to one-fourth of a grain, during two days. The effects were dry throat, loss of sight, cold, swollen hands etc., but the pertussis was promptly relieved.

New Test for Diabetes.—Dr. E. C. Bidwell communicates to the Boston *Medical and Surgical Journal* (Nov. 22, 1860) a process which he claims as a new test for glucosuria. His proposed test, he says, if not preëminently scientific, is nevertheless facile and reliable. He converts the saccharine element of diabetic urine into *caramel*, by heat. Upon a clean slip of tinned iron are placed one or two drops of the suspected material, which is then held over a spirit lamp ; the fluid will speedily evaporate, leaving scarcely a trace upon the surface of the metal. The application of the heat is continued, and in a few moments after the completion of the desiccation, a spot, about an inch in diameter, over which the drop has spread with the first ebullition, will gradually assume a rich reddish brown color, with a brilliant lustre, having the appearance of Japan lacquer. The application of a stronger heat produces a darker color, but the lustre continues until the intensity of the heat decomposes the substance. Dr. B. claims great success in his experiments, with this new method, which is far superior to those tests found on either fermentation, or on the reduction of metallic oxides, which latter, besides being complicated and inconvenient for clinical use, are liable to various fallacies.

Ovarian Dropsy in a Girl aged Fifteen Years.—At a recent meeting of the Boston Society for medical improvement (reported in the Boston *Medical and Surgical Journal*, Nov. 22, 1860), Dr. Jackson communicated a case of ovarian dropsy, which came under his notice in the hospital, which is interesting on account of the remarkable youth of the patient. Her general appearance was healthy. Since August, 1859, she has been subject to dysuria; and since November the catamenia had been profuse, being continuous at one time, during the winter, for about six weeks. Early in February, she experienced pain in the right ovarian region, which lasted about four weeks; and soon after, she had slight pain in the left ovarian region. The abdomen commenced to enlarge soon after the first pain, and, on her admission to the hospital, measured thirty-seven inches in circumference, was flat on percussion, except on the sides, and as she lay upon the back. It was, in every way, an unequivocal case in regard to the diagnosis, an examination *per vaginam* having been made in reference to the possibility of pregnancy.

STRAMONIUM IN NEURALGIA.—A recent number of the Chicago *Medical Examiner* contains a well written article by Dr. Young, in which he recommends the use of the datura stramonium in cases of neuralgia. The treatment consists in the exhibition, every three hours, of one grain of the extract of stramonium leaves, prepared according to Tilden's formula, until the system is brought under the peculiar influence of the drug, as indicated by vertigo, disordered vision, dilated pupil, etc.

EPILEPSY, WITH A PECULIAR PARASITE IN THE ALIMENTARY CANAL.—Dr. G. W. Powell, in the November number of the *Atlanta* (*Ga.*) *Medical and Surgical Journal*, reports the case of a young man, twenty-two years of age, who had been subject to epilepsy for two years. The patient placed himself under Dr. P.'s treatment in October, 1859, but was attacked a few weeks subsequently with remittent fever. He was in an anæmic condition, with general anasarca, with a morbid appetite for food.

Two months since, after an unreasonable indulgence in food, he was attacked with nausea and vomiting, which continued until a number of parasitic animals were thrown up ; and others were passed from the intestines.

These parasites were submitted to a microscopical examination by Dr. J. G. Westmoreland. One of them was ascertained to resemble the worm usually found in human intestines, and is about two lines in length, half a line in breadth, and of a pale red color. The other is an insect unlike anything usually found in the alimentary canal : it is from three-fourths of a line to a line in length, and from a fourth to a half a line in thickness, and of a dark red color : it has six legs and two antennæ, and in appearance is intermediate between the beetle and flea.

Septicœmia following Rheumatism.—In the reports of the clinics at the Pennsylvania Hospital, published in the Philadelphia *Medical and Surgical Reporter* (Oct. 27, 1860), in the service of Dr. J. Forsyth Meigs, an interesting case of articular rheumatism was admitted. The patient was a sailor, aged twenty-two years, and was treated with nitrate of potassa and Dover's powders, and appeared to improve and convalesce. There was no cardiac trouble. He suddenly became worse ; a low type of fever, accompanied with some secondary bronchitis and pneumonia, supervened. A close examination indicated that there was no typhoid fever. Dr. Meigs was led to conclude that it was a case of pyæmia, or septicœmia—the pyæmia following rheumatism, according to Bennett. Although this affection is called pyæmia, yet it is not really characterized by the presence of pus in the blood, but is owing to either the formation or the introduction of some animal poison. There are many causes of this condition. In this instance it followed acute rheumatism. Dissecting wounds cause it; and Dr. Vozel mentions a case of a man who was attacked with septicœmia, as the result of violent dancing through a whole night.

THE USE OF MULLEIN (VERBASCUM THAPSUS) IN CHRONIC BRONCHITIS. — Dr. H. Wilson, of Boonsboro', Md., in a communication to the Philadelphia *Medical and Surgical Reporter* (Nov. 17, 1860), strongly recommends the use of mullein (*verbascum thapsus*) in the treatment of chronic bronchitis. In that form of the disease in which there is dryness of the trachea, "with a constant desire to clear the throat'," attended with little expectoration, and considerable pain in the part affected, Dr. W. says the leaves of the common mullein, dried and smoked in a pipe, three times daily, afford a prompt relief. It allays irritation, while it promotes expectoration.

Dr. Wilson reports several cases illustrative of the great success which has attended the exhibition of this remedy in his practice.

IDIOPATHIC TETANUS—FAILURE OF QUININE—GOOD EFFECT OF STIMULATION. — The New York correspondent of the Philadelphia *Medical and Surgical Reporter* calls attention to a case of idiopathic tetanus successfully treated by Dr. Alonzo Clark, in the wards of the Bellevue Hospital. The patient, a young man twenty-three years of age, was first put under the use of sulphate of quinia, in five grain doses, administered every hour. At the expiration of thirty-six hours, no improvement having taken place, and, on the contrary, the patient having become worse, whisky was freely given. The improvement was immediate. The whisky was dropped, and opium in large doses was administered. The disease thereupon immediately became again threatening. Whisky was again exhibited (twenty ounces per diem), with moderate doses of opium, with most prompt and marked benefit. The quinia treatment failed entirely.

Alleged Identity of Leprosy, Syphilis and Struma.—The same correspondent states that Dr. Valentine Mott, in a late clinical lecture, expressed the opinion that *leprosy* was the great progenitor of of both *syphilis* and *struma*—that they were all three the same disease. His conviction was founded upon extensive observations which he had been enabled to make upon leprosy in its various phases while travelling in the East. Dr. M. instanced the striking analogy between leprous and syphilitic sore throats and skin diseases. A. J. S.

SPECIAL SELECTIONS.

LECTURES ON EXPERIMENTAL PATHOLOGY AND OPERATIVE PHYSIOLOGY:

Delivered at the College of France, during the Winter Session, 1859–60.

By M Claude Bernard, Member of the French Institute ; Professor of General Physiology at the Faculty of Sciences.

LECTURE XXVII.—EXPERIMENTAL PATHOLOGY—ON MUSCULAR POISONS.

Gentlemen: That fatal diseases, in a variety of cases, leave behind them no visible marks of their passage, is one of the most singular, and at the same time indubitable, facts which the medical sciences have brought to our knowledge; and, as we stated in one of our previous lectures, there exist in this respect two distinct regions in the field of nosology; some affections being connected with constant lesions, while others are not. Now, the toxic agents to which we have lately called your attention are precisely situated in the same case, and might equally be ranged under two principal divisions—those which produce evident physical changes in the diseased organs, and those which do not. We have already informed you that several poisons, which destroy life with great rapidity, leave behind them no appreciable alteration of the tissues on which their deadly action has been exerted. In the case of woorara, for instance, we showed you that the motor nerves were entirely paralyzed, without exhibiting the slightest modification in their anatomical structure or physical properties. The electro-tonic power, which M. Dubois-Reymond has ascertained to exist in the nerves, still retains, in animals poisoned with this substance, its usual degree of intensity, according to the latest experiments; the galvanic stimulus, however, and the impulse of the will, no longer exert their wonted influence on the locomotive apparatus.

But if in this case the vital powers are destroyed by a process, the first stage of which lies hidden from our knowledge, a similar property is enjoyed by numerous other poisons, among which strychnia may be selected as an example; a substance, which as we have already informed you, exclusively confines its action to the sensitive portion of the nervous system, the convulsions which arise from its introduction into the economy being merely the result of reflex action. An essential difference therefore exists between these two poisons, although in both cases the nerves are found to be the seat of disease. As the contrary opinion has lately been maintained by certain observers, who believe the effects produced by these agents to be somewhat analogous, we cannot refrain, notwithstanding the various proofs previously adduced in support of our own views, from mentioning a very simple experiment, which, according to our judgment, decides the question at once. It consists in tying the vessels of the posterior limbs, in two frogs of equal size, without injuring the nerves, the animals are then simultaneously poisoned, by injecting under the skin of the back a solution of woorara in the first case, and of strychnia in the second. The operative proceeding is as follows : A thread being passed under the sacrum, immediately in front of the origin of the lumbar plexus, the whole remaining part of the animal's body is included in a single ligature. All vascular communication being thus intercepted between the hind legs and the anterior portion of the body, the poison exclusively circulates in the trunk and upper limbs, without passing beyond them. Notwithstanding this obstacle, the posterior limbs of the frog poisoned with strychnia enter into convulsions ; while in the animal submitted to the action of woorara, voluntary motion exists below the ligature, while absolute paralysis prevails above it. The result obtained in the first case arises from the general influence exerted upon the entire economy by all actions brought to bear upon the sensitive nerves, which acting in their turn upon the spinal cord, produce a universal disturbance of the normal functions, as we have before explained. Such are the results which take place when strychnia is administered ; but the effects of woorara being only felt in those parts to which the circulation has conveyed it, are confined to the upper half of the body, when all communication between the hinder limbs and the seat of inoculation has been intercepted. The ultimate results of the experiment afford an additional proof of the difference which exists between these two poisons. After a few minutes have elapsed, the subject poisoned with strychnia no longer exhibits the slightest vestige of reflex action in any part of the body ; and the motor nerves when galvanized, are generally found to have lost the power of acting upon the muscles, particularly when the experiment has been performed during the warmer seasons of the year—for heat is known to give additional intensity to the effects of poison in cold-blooded animals. But the loss of excitability is not confined to any given point ; it extends to all regions of the body, and appears consecutively to the entire abolition of sensibility and reflex motions.

In animals poisoned with woorara we meet with a very different state of things. The sensitive nerves have everywhere retained their usual properties, while the motor branches are paralyzed above the ligature ; below this point, voluntary motion persists as long as life remains ; and if the animal is thrown into a basin of water, it swims with its posterior limbs, the upper part of the body remaining, of course, entirely motionless. These facts sufficiently prove the vast difference which exists between the action of these two substances upon the nervous system.

But there exist other poisons which equally destroy the vital properties of the locomotive apparatus, although a totally different histological element becomes the seat of disorganization. We allude to the toxic agents, which abolish contractility in the muscular tissue ; you will find them infinitely more numerous than those which confine their action to the nerves. Among this class of bodies, digitalis and upas antiar* have already been mentioned ; and the attention of American physiologists has lately been drawn by Dr. Mitchell, of Philadelphia, to the properties of two other substances, which are known by the Indian names of Corrowal and Wao. Their action is similar to that of upas, although of greater intensity. The active principle of the veratrum album, or veratrine, a substance now frequently employed in practice, also exerts its influence upon the muscular fibre, to the exclusion of all other tissues ; and a large number of poisons, with the chemical composition of which we are imperfectly acquainted, evidently belong to the same class.

The small arrows now placed before you were forwarded to us by M. Boussingault. These weapons are extensively used in South America. The nature of the substance with which they are impregnated is still a mystery to us ; they were supposed to have been charged with woorara, but their action is of a totally different kind ; the muscular, not the nervous, fibres are affected by the wounds which they inflict. Although unable to state in a positive manner what this position really is, I am tempted to believe that the venom of toads is the substance employed. The Indians of New Granada are known to make use of a small variety of this animal, which is found in great abundance in that country, for the purpose of poisoning their weapons. After collecting a large number of toads, they impale them upon wooden spits, and roast them alive. The heat causes the animal to eject its venom, into which the arrows are dipped. This latter substance is known in fact to exert a most powerful action on the muscular tissue. But the unknown principle with which these arrows are impregnated differs so completely in its properties from those usually attributed to animal poisons, that we shall seize the present opportunity to enter into some considerations on the subject of venoms in general, and that of the toad in particular, our conclusions being the result of the researches we have lately undertaken on this interesting and hitherto obscure part of toxicology.

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* There exists another kind of upas, which is merely a preparation of strychnia.

The effects produced on animals by these poisoned arrows would appear at first sight to be strictly similar to those produced in our own climate by the venom of toads; but when we inquire into the chemical composition of this new substance, we find it to be a perfectly stable compound, the properties of which are not destroyed by plunging it into hot water or dissolving it in alcohol. The arrows which have been allowed to rest for a certain space of time in this latter solvent are found to have lost their destructive power, although no change has taken place in their dark brown color; and the liquid in which they have been kept being gradually evaporated, the solid residue left behind appears to contain the active principle which imbibes them, for on redissolving it in water a poison is obtained which produces on animals the same effects as the arrows themselves.

But the opinions usually entertained with respect to venoms are entirely opposed to such a result. Animal poisons are in general considered as resembling ferments in their chemical properties, being easily destroyed by the action of heat, and modified by dissolution in alcohol and other powerful solvents. We ought, therefore, in concordance with generally received opinions, to have surrendered our former hypothesis; but, however satisfactory the inductions drawn from previously-ascertained facts may appear, an experimental verification is always indispensable in sound physiology, even in those cases in which it seems useless, and almost absurd, to require experimental proofs. Acting in conformity with this rule, which has always directed us up to the present time in our labors, we have examined in its turn the venom of toads, for the purpose of ascertaining whether its characteristics, were really such as had been supposed ; and, contrary to our expectations, we have found it to be soluble in alcohol, and in all other respects as stable a compound as the active principle of these American arrows, for the action of boiling water destroys none of its properties.

It had been supposed, however, that no venom was fatal to the animal itself which secreted it ; and as the poisonous arrows produce marked effects upon the toad, we found it necessary to try upon this animal the results produced by the inoculation of its own venom, in order to ascertain whether the opinion generally entertained on this point was scientifically true. The experiments undertaken for this purpose do not allow the slightest doubt to remain on this point. The toad is killed, like other animals, by the inoculation of its own venom ; it is, however, true that the action of this poison is infinitely less intense in toads than in frogs, of all other animals those which resemble them most in organization ; and it might hence be inferred that a certain degree of truth exists in the above-mentioned opinions. Let us bear in mind, however, that the resistance of the toad to all kinds of poison is infinitely superior to that of the frog ; that strychnia, upas, and various other substances act in much smaller doses upon the latter than upon the former animal : a fact which agrees with the lower excitability of the nervous system in toads.

All these phenomena may, therefore, be reduced to a general principle, which we have strenuously endeavored to inculcate in the course of the present lectures: namely, that no essential differences exist between the homologous tissues of different animals; that properties observed in one case are found to exist throughout the entire scale of being, although considerable variations in their intensity are met with, even in the case of neighboring species. You also perceive that our knowledge of venoms is less advanced than the other branches of toxicology, and that it is urgent to repeat a new series of experiments on each of those substances in particular; for we are not prepared, up to the present moment, to attribute the properties enjoyed by the venom of toads to the whole series of animal poisons; farther researches are indispensable to settle the question.

Let us now, gentlemen, after this digression, resume the explanation of the effects produced by muscular poisons. The principal result of their action is sudden arrest of the heart's motion; and in this respect they might be divided into two classes. Some of them act upon the heart before affecting the voluntary muscles; such is the case with digitalis and upas antiar. Corrowal and wao enjoy this power in a still greater degree. The reverse is the case with other poisons; they act upon the voluntary muscles at first, and do not paralyze the heart till a later period of the destructive process; the American arrows belong to this latter class. It is, therefore, easy to conceive how wide is the difference between the intensity with which these poisons act in animals differently organized. A very small dose of corrowal produces instant death in birds; a mammal survives a few minutes; while frogs resist the action of this substance for a considerable space of time—these animals, as you are aware, being able to survive a few hours after the total ablation of the heart.

We shall now perform a few experiments on various animals with these different poisons; and you will find that far, from resembling woorara and strychnia, which destroy life without leaving the slightest vestige of their action, these muscular poisons actually produce deep physical changes in the tissue, which loses its physiological properties under their influence.

(At this stage of the lecture, a couple of pigeons are brought forward; an incision is made into the breast of both, laying bare the muscular fibres, and on applying test-paper, a decided alkaline reaction is met with in both cases. One of the pigeons is then killed with a poisoned arrow, the other with a solution of woorara injected into the cellular tissue. A frog is at the same time poisoned by introducing a small dose of corrowal under the skin; it is then replaced in the jar from which it had been taken.)

You perceive, gentlemen, that the muscular tissue offers a decided alkaline reäction in the healthy state. But in animals poisoned with any of those substances which act upon the contractile elements, the reäction of this tissue becomes acid, and the *rigor mortis* occurs immediately after death; two changes which spontaneously take place in dead animals, but only after a space of twenty-four hours has elapsed. The electrical properties of this tissue undergo a singular alteration, for in the ordinary state of things, the external surface of a muscle is positively, and its internal or cut surface, negatively electrified; the reverse is the case in animals poisoned with these toxic agents. And, lastly, on opening the bodies immediately after death, the heart is found contracted, motionless, rigid, and totally empty; so that its transparent walls, in the frog, have lost the ruddy color imparted by the presence of blood within the cardiac cavities, and appear perfectly white and colorless.

In all such cases, the muscular element alone has been acted upon ; for if on poisoning an animal with one of these agents, you were to apply a ligature round one of the limbs, and thus prevent the poison from reaching it, you would find that while the other muscles of the body remained insensible to the action of galvanism, those of the limb thus preserved would readily obey its influence, when excited, through the corresponding nerves ; a proof that the muscular fibres alone have in this case been interfered with, the nerves retaining as before all their vital properties.

(The bodies of the poisoned animals were now opened ; in the pigeon killed with an arrow, the heart was found rigid and motionless, the muscles stiff and incapable of responding to the galvanic current. The same phenomena were observed in the frog, the heart of which was particularly rigid and perfectly colorless. On testing the muscles their reäction was found decidedly acid. In the pigeon killed with woorara, the heart was found still in motion ; and when at length its pulsations had ceased, galvanism was applied to it, and caused the parietes to contract ; muscles of the limbs responded readily and powerfully to the same agent, and their reäction was alkaline.)

You will no doubt allow me, gentlemen, to seize this opportunity of conveying to your knowledge our opinions on the subject of the connexion existing between physiological phenomena and the physical properties of the tissues which produce them. It may be correctly asserted, in a general manner that the physiological properties of muscles, nerves, and all other tissues, coëxist with physical and chemical phenomena of a peculiar nature, and that a direct relation is to be found between the degree of intensity which each class of properties exhibits. Shortly after death the vital characteristics of the tissues disappear along with their physical and chemical properties; thus, in muscles, the electric current fails at the moment when contractility is extinguished; and in nerves the electro-tonic power disappears at the same moment as physiological excitability. But although we are tempted to view this connection between physical and physiological phenomena in the light of the necessary relations between cause and effect, I rather believe it to be a mere coïncidence. It must not be supposed that the vital properties persist as long as the physical and chemical phenomena have not disappeared. A remarkable instance of this reciprocal independence is afforded by the following experiment: A rabbit being killed by the section of the medulla oblongata, both nervous excitability, muscular irritability and the electric muscular current disappear by degrees, and are totally extinct a few hours after death. But when the animal is poisoned with upas a very different result is observed; the normal irritability of the muscles disappears twenty-five or thirty seconds after death, while the electric current persists during four or five hours. In the same manner the alkaline reäction of muscles is not inseparably connected with their contractile power, nor the electro-tonic state in nerves, with the property of transmitting the impulse of the will.

Far be it from us to maintain that the disappearance of the vital properties of any given tissue is not in all cases the result of a material change: we only intend to show that in more cases than one that change is yet unknown and must be sought for in a different direction; the physical and chemical properties hitherto known to exist in our tissues are the inseparable attendants of the vital action, but do not appear entirely to create its powers.

We shall here conclude, gentlemen, our Course of Experimental Pathology for the present session; we shall resume these studies next year at the point where we now drop them; and, the general notions of the science having now been laid down, we shall devote our attention to a few particular points. We shall, therefore, endeavor to produce in sound animals some of the diseases with which clinical observation has rendered us familiar, by means of surgical operations; and in observing their effects, in seeking to explain their cause, we shall never lose sight of our fundamental principle, "That Physiology is the foundation-stone of Pathology."—*Med. Times and Gaz.*

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EDITORIAL AND MISCELLANEOUS.

THE NEW YEAR.

For the first time in our life, we look into the New Year with forebodings of all but good. To our patrons, then, we certainly do wish "a happy new year;" but the wish is clouded with the impressible conviction that it is scarcely in the range of probability that in this land of ours there will, in the space of a few short months, be a single happy individual. Prosperity, preachers, and politicians have combined to madden our people, until there seems scarcely a shadow of hope that we shall avoid suicide in its worst form.

Such a theme has no relation whatever to medicine, and may be objected to by our readers. This reason, and our own natural repugnance to political matters (to say nothing of our single eye to the interests of our profession), cause us to forbear from expatiating. We pray that our worst fears may soon vanish into thin air, and our still lingering hope for the continuance of our Union be realized.

MEDICAL CLASS OF THE NEW ORLEANS SCHOOL OF MEDICINE.

Notwithstanding the terrible financial crisis and unprecedented political excitement which exists, the class of the New Orleans School of Medicine is this day (December 20th) larger than it ever was at the same date, and the proportion of bona fide students (under-graduates) far greater. The institution will stand fully up to the expectation of its friends, and under other and more favorable surrounding circumstances would have surpassed this. Many students have been denied the pleasure of coming to us, and many have even had to return home after coming to the city, having found it impossible to make arrangements for even paying their board and lodging.

DR. J. MARION SIMS AND HIS COMPARISON OF NORTHERN AND SOUTHERN MEDICAL ADVANTAGES.—From one of our exchanges we learn that Dr. J. Marion Sims has made a speech to the Southern Medical students of New York city. He expressed the warmest devotion to his native South, acknowledges that there are as good medical schools at the South as at the North, but begs the students not to abandon the hospital facilities surrounding them, assuring them that they are superior to those of the South. What a pity that those who have eyes will not see. Pay us a visit, Doctor, and if we do not convince you in half an hour that the Charity Hospital of New Orleans is worth half a dozen of those in New York, for the practical purpose of the student of medicine, then we will never say hospital again. This is a truism, Doctor. It is no idle boast to catch students. The Charity Hospital is *free* to the student, and he can walk the wards with half a dozen teachers every morning of his life, and use all his senses to his heart's content; and this we undertake, from positive personal observation, to say he cannot do elsewhere in this country.

Apropos—the New York Herald of the 13th inst. gives a long account of a grand blow-up among the teachers and students in one of the New York colleges, and secession is again the order of the day. From reliable authority we learn that the number of Southern students in New York this winter is unusually small, and we suppose there will now be a grand clearing out. Wonder if the Southern schools will again be accused of complicity in this business?

But while we write, here comes the Herald of the 17th, from which we extract the following, informing the reader first, that Dr. Aylette, the recipient of this base insult, is a Southern man, who has for many years been laboring to advance the interests of the school which now attempts to degrade him.

MOVEMENTS OF THE MEDICAL STUDENTS.—*Fifty-seven Students of the New York University decide to take up Bag and Baggage—Names of the Students—Professor Draper's*

Letter—Resolutions adopted—Amount of Money spent in New York by Southern Students, etc., etc.

At a meeting of the students in the New York University Medical College on last Friday evening, upwards of fifty students resolved to leave the College, and finish their medical education elsewhere. The following is a full list of those who took part in the meeting:

Dr. P. A. Holt, Chairman, N. C.; Mr. Kimberly, N. Y.; C. S. DeGrow, N. Y.; Alex. Hill, Pa.; W. H. Dryscoll, Ala.; Dr. Hurt, Va.; J. S. Kiernan, N. Y.; W. A. Ellis, Ala.; G. T. Gardiner, Ala.; W. F. Furguson, Ga.; J. A. Penny, N. C.; W. H. Robertson, Tenn.; J. M. Sloan, S. C.; W. P. Suber, S. C.; O. R. Broiles, S. C.; B. H. Davis, N. C.; A. J. Arnett, S. C.; J. R. Evans, S. C.; D. A. Taylor, Ala.; Thos. Cowan, N. C.; D. Barger, N. C.; A. H. Stearns, Ala.; J. R. Miliken, Ky.; J. S. Taft, N. C.; C. H. Baker, Va.; W. J. Colvin, Ala.; S. H. Day, Tenn.; J. V. Johnson, Ga.; P. Binford, Ala.; J. H. Baker, Ala.; H. G. Flanner, N. C.; R. F. Lewis, N. C.; W. P. Newman, Ala.; J. P. Gibson, N. C.; Mr. Carlyle, S. C.; A. E. Sumner, Conn.; B. F. Rains, Va.; J. L. Fuller, Ga.; J. R. Blunt, S. C.; S. W. Franklin, Miss.; W. H. Edmonson, N. C.; J. P. Brown, N. C.; F. Thomson, N. C.; T. G. Weatherly, S. C.; B. F. Coleman, Ala.; L. J. Watkins, N. C.; D. J. Jones, Ala.; A. B. Burr, N. C.; B. L. Hester, Tenn.; G. K. Turner, Va.; K. P. Harris, jr., Ga.; T. J. Applewhite, N. C.; F. M. Moye, N. C.; W. J. Gilbert, N. C.; J. M. Robinson, Miss.; E. H. Compton, Ky.; J. J. Jesson, Ky.; C. C. Welsh, S. C.; J. F. Strode, Ky.; S. H. Puckett, S. C.; W. F. Smith, Va.; John M. Patton, Ala.; Charles Haigh, N. C.; F. J. Drake, N. C.; John McDonald, N. C.; J. R. Nicholson, N. C.; G. H. Owen, N. Y.; T. W. Bickett, N. C.; A. J. Stone, N. C.; F. H. Seawell, N. C.; John E. Fry, Tenn.

The letter from Professor Draper at which the students have taken such umbrage is as follows:

DR. AYLETTE—Dear Sir: Will you please give me replies for the use of the Faculty to the four following questions:

1. Have you informed any student that it is not necessary to take out his tickets at the beginning of the session.

and that the Faculty did not require their fees until Christmas?

2. Have you taken money from students who had brought it to New York for the purpose of paying their college fees, and invested it, for your own profit, with business men?

3. Have you, after receiving New York funds, given to any uncurrent notes at a heavy discount, keeping the difference for your own use?

4. Have you failed to repay any student who had deposited his money for safe keeping, on the excuse that those to whom you lent it were unable to keep their engagements with you?

Your early reply to these questions will greatly oblige

J. W. DRAPER,
President Medical Faculty, N. Y. U. M. C.

Dr. P. Aylette is, or has been attached to the Fourteenth-street college as a private instructor to Southern students, with the especial sanction of the Faculty, and although blind, has enjoyed considerable reputation as a teacher of certain branches of medicine; and hailing from the South, was extremely popular among the students from that section of the country. It is said that his class numbers annually over one hundred members, and they immediately assembled together, irrespective of party or section, and a committee consisting of eight—four of whom are Southerners, and the remaining four are Northerners—was appointed for the purpose of drafting resolutions suitable to the occasion.

The committee prepared the following resolutions, which were adopted without a dissenting voice:

"*Whereas*, a communication was received by Dr. P. A. Aylette, our associate and friend, from Professor John W. Draper, President of, and in behalf of the Faculty of the Medical Department of the University of New York, propounding certain interrogatories, which, in their manner and language, we think, contain imputations against the character of Dr. Aylette, which we know to be unfounded and untrue, and which deservedly meet our unanimous disapprobation, and which, we regret, are calculated to militate seriously against the prosperity of this institution.

—in proof of which, we have only to look at the large majority of students from that section of the country which has been, and will be influented by the existing state of affairs; therefore,

"*Resolved*, That in our professional, social and personal association with Dr. P. A. Aylette, we have ever found him the courteous gentleman, the prudent counsellor, companion and friend; and that any imputation cast upon his personal integrity is untrue, and we boldly assert that the originator of these charges is guilty of a malicious and unprovoked slander.

"*Resolved*, In our opinion, the long-continued and most successful instructions of Dr. Aylette, of which our predecessors and ourselves have been the recipients, in the medical department of this university, have materially contributed to the attainment of its present prosperity.

"*Resolved*, That in our connection with this institution, during the present and previous sessions, we have always found Dr. Aylette its unflinching friend; and in order to promote its interests, has left no efforts untried to prevent students being led astray by the political agitation of the times. And so far from deriving pecuniary profit from the use of their money, has incurred, to our knowledge, personal loss in affording them accommodation, by the exchange of uncurrent for current funds."

The Southern students are, we understand, to leave in the steamer Marion, for Charleston, on Wednesday next.

The average number of Southern students who have been in the habit of attending medical lectures in New York, chiefly in the department of the University in Fourteenth street, has been about 200. The money spent by them in various ways, for each course, is variously estimated at from $140,000 to $200,000. The persons chiefly benefited by their patronage are boarding-house-keepers—many of whom are widows struggling to support their families—clothing and boot and shoe dealers, booksellers, surgical instrument makers, not forgetting their tutors and professors.

Apropos, No. 2. For the benefit of the Southern student, we take from the December number of the

Nashville Journal the following precious morceau, said to be copied from the *New York Sun:*

"The Southern medical student is well known in the neighborhood of Thirteenth street, Irving Place and Fourth Avenue. He is a long-haired, lantern-jawed, verdant youth, afflicted with chronic salivation and inveterate profanity. Reared in the semi-savage solitude of a remote plantation, and deriving his ideas of morals, grammar and behavior from his negro nurse and piccaninny playmates, he becomes in New York a puzzle to professors, a terror to landladies, and a magnificent patron of grogshops. Having finished his so-called course of study, if he be lucky enough to obtain a diploma, he returns to his native wilds, to commence practice on a portentous stock of medical ignorance, calomel and quinine. Next to his love for tobacco and grog, comes his taste for disunion. Ignorant of law and innocent of logic, his stock of political ideas consists wholly of hatred of the people to whom he is obliged to come for instruction. If he does not know anything else, he knows that Yankees are a shade worse than thieves and robbers. He is quite ready to accept from these wretched New Yorkers such a knowledge of physic as his intellect is capable of receiving, and he balances the debt of obligation by abusing his teachers."

BOOKS AND PAMPHLETS RECEIVED.—We are in receipt of the second volume of "An Epitome of Braithwaite's Retrospect," by Dr. Walter S. Wells, of New York. We recommended this work in its first volume, and have only to repeat now that it is one of the most convenient and valuable books of the day. We are happy to announce that Dr. Wells proposes to issue an Epitome of

Ranking's Abstract, and also a half-yearly Summary of Contributions from reliable foreign and domestic pens. Dr. Wells is working in the right direction, and with a zeal not often equalled. We wish him all success.

An Appeal to our Friends.—In our last issue, we hinted to our friends that we were in want of oil for our machinery. We must be greased, gentlemen, or friction will injure us. We are rubbing roughly against our printer; or rather, he is rubbing against us. You owe us the oil fairly, gentlemen, and should not subject us to such usage.

EXCERPTA.

Veratrum Viride in Nervous Affections.—I have read with great interest the article in the September number of the *Southern Medical and Surgical Journal* on "veratrum viride," in chorea and other convulsive diseases. Dr. Baker's views as to the *modus operandi* of this remedy are doubtless correct; and it is strange that the truth so ably enforced by him should have been overlooked by the mass of the profession, and even by those who have most extensively used and warmly advocated the great sedative. It would seem that a knowedge of the controlling power of veratrum viride over the circulation would almost inevitably lead to its use in convulsive affections originating in exaltation of nervous sensibility; yet, as already intimated, this practice appears to be almost unknown to the profession. Still Dr. Baker's declaration is not strictly correct, that "all that has been published, either in the United States Dispensatory" or elsewhere, concerning the remedial power of this agent, was written in reference to its value in the treatment of febrile and inflammatory diseases. In an article published in this journal, in July, 1853, under the head of "a brief summary of my experience with the veratrum viride," may be found among a number of others, a case of epileptiform convulsions which was successfully treated principally with veratrum viride. The following is an extract from the above article: "The subject of convulsions was an anæmic boy of ten or twelve years of age; the spasms were frequent and extremely severe, every paroxysm apparently putting the life of the patient in imminent danger; the veratrum to reduce the frequency of the pulse, and ether inhalations to quiet the spasms were the remedies almost exclusively relied upon; and these indications were fulfilled in the happiest possible manner, snatching the little sufferer from the very jaws of death." This quotation, while it may render some qualification of Dr. Baker's remark necessary, shows very plainly that the writer did not, at that time, fully apprehend the controlling power of the veratrum over the nervous system; and as this important truth has taken a more definite form in his mind since that time, his object in writing now is not so much to criticise and find fault as to return thanks to Dr. Baker for the practical demonstrations so forcibly presented in his article. I believe that the discovery of the sedative powers of veratrum viride in febrile and inflammatory diseases is among the greatest, if not the greatest, boon of modern therapeutics; and if it should be found to possess equal power over nervous affections, its virtues cannot well be over-estimated. My experience with it in the latter class of disorders is quite limited, but in the former not inconsiderable; and I can truly repeat the declaration made in the above quoted article published by me in 1853, and based upon the result of twenty-five cases of various disorders: "I have never seen it fail in reducing the frequency of the pulse, while there was generally an improvement in its volume."

My experience fully corroborates Dr. Baker as to the size of the dose. When there is no urgent necessity for a prompt effect, I generally begin with only three or four drops for an adult, every three hours, increasing one drop each dose until the pulse is sufficiently reduced. By pursuing this plan I have almost always succeeded in accomplishing the desired effect, and without a single unpleasant symptom—without even the slightest nausea; indeed, in many cases patients could not tell from their feelings that they were taking anything more than so much water; and yet the pulse may thus be pleasantly and gently reduced from one hundred and forty to sixty, or even lower. When nausea and vomiting do occur they are very distressing and peculiar; but I have never had any difficulty in giving relief by diminishing the dose, or by giving a little brandy, or ether, or morphine, or something of that kind. I trust that Dr. Baker will continue to push his investigations in the line marked out by him, and that others will follow his example, until the controlling power of veratrum viride is as fully demonstrated in nervous as it is in vascular disorders.—*South Med. and Surg. Jour.—Savannah Journal of Medicine.*

PERFORMANCE OF THE CÆSARIAN OPERATION AFTER DEATH.—Several journals recently related that, in one of the Western Departments of France, a sister of charity, at the instigation of a clergyman, had performed the Cæsarian operation with a carving knife upon a gravid woman who had died some hours previously. We cannot vouch for the truth of the story, but the publicity it has received has induced Mr. Laforgue, Professor of Midwifery, at the Toulouse School of Medicine, to make on the subject some very judicious remarks, which we reproduce from the columns of the *Abeille Médicale*:

"While the medical profession," said Mr. Laforgue, "is as yet in doubt with regard to the performance of the Cæsarian operation after the death of the mother, theologians entertain very positive ideas on the subject, and have preserved in its full stringency the ancient law which prohibits the inhumation of a pregnant woman before she has been delivered of her child, *antiquam partus ei excidatur.* (Digest, lib. ii., cap. 8.)

"The legislature having permitted this law to fall into disuse, physicians refrain from an operation which they generally consider useless; theologians, on the contrary, are ever ready to act, being inspired with a hope of promoting the salvation of the child by administering baptism. The conduct of both is to be regretted; it is, on the other side, founded on a true, but exaggerated principle, and I consider it may be useful to indicate briefly what should be the practical solution of this much disputed question.

"The intervention of persons unacquainted with medicine being extremely dangerous, the operation should never be performed but by medical men. They alone are possessed of the special knowledge requisite for the appreciation of the signs of death, of the proper time and procedure of the operation. This being an unquestionable fact it follows as a necessary consequence that all practitioners should consider it a professional duty to perform the Cæsarian section after the death of women who have reached the last months of pregnancy.

"The numerous instances of posthumous births resulting from this operation, leave the surgeon no option in the matter; both humanity and religion command, as an imperative duty to attempt to save the child who outlives its mother. On none but on the medical practitioner devolve the duty and honor of making an effort to preserve a being endowed with the principle of life. Should he fail, his attempt will be deserving of praise; and if successful he will have accomplished one of the noblest acts of his calling.

"Seven years since (May 26th, 1853), I successfully performed the Cæsarian section on a woman who died at an advanced period of pregnancy, and a quarter of an hour after her death, I extracted a living child, who bears the name of Cæsar Bénozet, and is now a fine, vigorous boy, in the enjoyment of perfect health.

"This case, which was recorded in most of the periodicals of the time (vide *Union Médicale*, An. 1843, vol. vii), may, without impropriety, be mentioned here, in order to inspire professional men with a confidence, which will be doubtless, often disappointed, as I have personally experienced, but which will certainly be deemed calculated to justify the expediency of an operation which I consider a duty imposed on the practitioner."

We have always shared the opinion expressed above, and we had an opportunity of applying them practically, some twenty years since, in a case which presented some interest with regard to the question of inheritance.

A consumptive woman, residing in a country place in

Brittany, summoned us one day, in order to claim at our hands one last service. She had been married twelve months before, was six or seven months pregnant, and the thought that her child, which she felt to be living, would follow her unbaptized in the grave, was more cruel for this Christian soul, than even the approach of death.

We promised her that her pious wish should be accomplished. The husband had further insisted upon the timely performance of the Cæsarian section. It was instituted according to the rules of art, and a living child, which received baptism, was extracted. This, however, was a part only of the delicate duty we had undertaken. We had further to declare whether this living child was *likely to live*. If so, he would inherit his mother's property, and transmit, in the probable case of not out-living the father, one-half of the inheritance to the latter and his heirs. If, on the contrary, the infant was not *viable*, the property of the mother was to revert to her relatives. Such was the issue of the case—the infant was puny and extremely feeble. We declared it not likely to live, and it expired after a few hours, never having been born to its civil rights.*—*Championerre's Journal.*

THE ETHERIZATION PATENT.—The following communication to the editors will show that no fears need be entertained with regard to the possible penalty of an infringement of the patent for the exclusive use of ether:

"*Messrs. Editors*—Recent newspaper notices have contained statements that the application made by W. T. G. Morton, formerly of Boston, for the further extension of a patent for the exclusive use of ether in surgical operations, has been rejected by the Commissioner of Patents, at Washington.

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* According to the English law it is not necessary that a child, when born, should be capable of living or *viable*, in order that it should take its civil rights. But, in France, by Art. 725 Code Napoleon. no child born alive can inherit, unless it be born, as the laws term it, *viable*.

"Inasmuch as threats of prosecution for such use of ether have not been infrequent, and as, in one case at least, in Boston, such a prosecution has been instituted and carried forward, though, as we believe, terminating at the trial with a remission of the claim for damages, we have deemed it of interest to the medical profession and to the community to ascertain the facts in relation to this patent.

"Fourteen years ago, a patent was issued from the United States Patent Office for the exclusive use of ether in surgical operation, to C. T. Jackson and W. T. G. Morton, the first-named gentleman having permitted his name to be used at the patent office solely with a view to secure his scientific rights as the original discoverer of the anæsthetic effects of ether when inhaled. This patent expired on the 12th of November, 1860. Some few months since, W. T. G. Morton filed his petition in the office of the Commissioner of Patents, praying for an extension to him of this patent for a further period of seven years. It is understood that he solicited Dr. Jackson to join in this petition, or to make to him an assignment of the doctor's right to an extension. The files of the Patent Office show not only no such union in any petition, no such assignment of the doctor's right to any extension, but some activity on the part of Dr. Jackson against the extension of the patent, in putting on file a remonstrance, printed evidence and an argument thereon.

"The Commissioner, the Hon. Philip F. Thomas, has rejected the petition for a renewal, and the patent has now no existence. The medical profession will thank the

Commissioner for thus rejecting this application for the extension of this odious and absurd patent—a patent that ought never to have been issued, one which would never have been granted, had the Commissioner known all the facts at the time it was originally granted.

"Hereafter no surgical operator will have any reason to be disturbed with threats of prosecution for his use of ether from any holder of a patent.

"*Boston, November* 21*st*, 1860."—*Boston Medical and Surgical Journal.*

CASE OF INTRA-UTERINE SMALL-POX. By *Dr. Alexander R. Simpson*, Secretary to the Edinburgh Obstetrical Society, and formerly President of the Royal Medical Society. (Communicated to the Edinburgh Obstetrical Society.)—Cases of intraüterine small-pox are not so rare but that most of the Fellows of this Society have met with one in their own practice, or have seen them when exhibited here by others. It is but very rarely, however, that we have an opportunity of tracing out the progress of the intraüterine disease so precisely as I was enabled to do in the case I have now to record.

Mrs. M'L., aged 22, and married for five years, miscarried on Friday, the first of July, 1858. She had had six miscarriages previously, and had usually gone to about the seventh month of gestation before the fœtus was expelled. One fœtus only was retained till the eighth month, and lived up till the time of its birth. She was generally in the enjoyment of good health; began to menstruate when only twelve years of age, and menstruated regularly every fortnight. After the occurrence of the miscarriage in the beginning of July, 1858, already referred to, she menstruated once—in the end of the same month; but before the time of the recurrence of another catamenial period arrived, she had become impregnated ; and when I saw the patient for the first time, in the end of October, she presented all the appearance of a person in the third month of utero-gestation. She was then ordered to take ten grains of chlorate of potash three times a day, as all the facts that could be furnished in regard to the repeated miscarriages seemed to point to some atrophic disease of the placenta as the cause of the death of the successive infants. The patient continued to do well until the beginning of February, 1859. On the 7th of that month, I was sent for to see her ; and on my arrival, I was told that on the 5th she had been out walking, when she found herself so poorly that she was obliged to hurry home. She had had some shivering fits that same morning, a good deal of sickness, and a feeling of soreness all over the body ; and she was then laboring under a high degree of fever, while the skin was covered with a multitude of rough red spots, evidently the commencement of some eruptive disease. On the following day it became quite clear that the patient had got an attack of modified small-pox. A number of discrete pustules broke out all over the body, most abundantly on the face, hands, and arms. They ran the usual course, and began to fade away after the ninth day ; so that, on the 23d of the month, eighteen days from the date of the onset of the disease, the patient was able to walk out of the house.

Up to this time the fœtal movements continued active as usual ; but a few days afterwards, on the 25th or 26th of the month, they began to be feebler and less frequent. The patient took no heed of this circumstance for a day or two ; but having at last become alarmed at it, she came to me. This was on Monday, the 28th of February. I found the sounds of the fœtal heart to be very faint, feeble and indistinct ; but on visiting the patient at her own house on the following Friday (March 4th), I heard them again quite distinct, though less forcible than natural. I did not see her again till the forenoon of the Monday following ; and on then listening through the stethoscope over the womb, found that the fœtal heart had ceased to beat, or, at least, that its souuds were no longer audible. On the preceding day, the patient had been out walking, when, as she averred, she became rather suddenly sensible of a feeling of weight, or falling down, in the womb, which compelled her speedily to return home. That, in the sensation thus experienced by the patient, we have an indication of the time when the fœtus died, it is of course impossible to determine ; but there can be but little doubt that the probable date of its death was the 5th or 6th of March. On the 8th, the patient met with an accident ; for, while voiding her urine early in the morning, the utensil on which she was seated broke beneath her, and a number of cuts and scratches were inflicted on her hips and thighs. Fortunately, however, the genital organs were uninjured, and the patient speedily recovered from the effects of her mishap. I did not again see the patient till about two o'clock in the morning of Friday, the 22d of March, when I was summoned to deliver her. She had been suffering more or less from occasional pains, referred to the region of the womb, for two days previously ; but the true labor pains had only set in about two hours before I arrived at her bed side, and by that time they had already succeeded in expelling the feet and body of the child. The head was soon delivered, and the placenta and membranes followed in due course.

As had been fully anticipated, the child at birth presented evidences of having been *in utero* the subject of an attack of variola; for a number of pustules, umbilicated in the centre, were found scattered here and there on the back, the head, and the thighs. The cuticle was separated, or easily separable, over a great part of the body, and the fœtus altogether was in the state of decay which we always expect to see in the case of a child that has lain for two weeks dead in the maternal womb. The pustules were but few in number, and but sparingly distributed over different parts of the body; and in consequence of the degree to which decomposition had gone on, several of them, as the members of the Society could observe, had fallen out at points where the cuticle was scaled off, and had left only cup-like depressions in the cutis vera. But enough were still left of a character sufficiently distinctive to show that the fœtus had suffered from small-pox, and that it had died at that period of the disease when the pustules had existed for seven or eight days—supposing always that the development of variolar pustules follows the same course in an intra-uterine subject that it does in a new-born child. The death of the fœtus in this instance, however, was not to be attributed to the attack of small-pox alone, or even to that chiefly. On the contrary, the attack, to judge from the small amount of eruption that had taken place, seems to have been, on the whole, rather a mild one; for the appearance of the pustules indicated the attainment of a stage of the disease too far advanced to allow it to be supposed that the intensity of the fever caused the infant's death before the eruption had time to be developed. It seems probable, indeed, that it would have survived that disease, and it might have been carried to the full time, and have been born alive, had there not been at hand another source of danger in the morbid condition of the placenta. As the members of the Society could perceive, the placenta was unusually small, pale, hard, and fibrous-looking, having undergone a change which has sometimes been described as fibrous degeneration, or cirrhosis of the placenta—a morbid condition of that organ which is well known to be an occasional cause of intra-uterine mortality.

But although the fœtus died, in all probability, of the defective nutrition and impeded oxygenation consequent on the diseased state of its placenta, and not of the attack of small-pox, of which it showed such distinct traces; yet the history of the case is interesting, as showing very exactly the date of the onset of the disease in the fœtus, and the length of time during which the mother suffered before the progeny in her womb became affected. We have, first, the mother attacked with the disease on Saturday, February 5th; the eruption appearing on the 7th, and beginning to fade on the 16th or 17th; and the patient so far recovered as to be able to be out of the house on the 23d of the month. She had fairly recovered, and the eruption had faded away, and left only its yet vascular scars behind, when, secondly, on the 25th or 26th of the month, twenty or twenty-one days from the time of the commencement of her own attack, she began to miss the fœtal movements; and this marks the date of the onset of the disease in the fœtus. On the 4th March, six or seven days after the fœtus thus seemed to have become affected, its heart-sounds were still distinct and clear; but on the third day afterwards they were no longer to be detected. On the seventh or eighth day from the date of the commencement of its disease, the fœtus had died. In short, after the disease had run a course of three weeks' duration in the mother, and had expended itself in her constitution, the fœtus became affected by it, and died on the seventh or eighth day afterwards, although it was not expelled from the uterus till the end of another fortnight.

URTICARIA AS A SYMPTOM OF IRRITATION OF THE FEMALE SEXUAL ORGANS—*By Professor Scanzoni.*

—Professor Scanzoni observes that although it has long been known that chronic affections of the female sexual organs are not infrequently accompanied by skin diseases (as urticaria, eczema, acne, psoriasis, chloasma, etc.), the influence of a more sudden irritation of these organs upon the cutaneous surface is by no means so well established. He has been enabled to find no very definite statements upon the subject, and this leads him to communicate some cases tending to establish such a consensus.

A lady, aged 35, had been under his care for some time with slight retroflexion of the uterus and chronic metritis, when he ordered four leeches to be applied to the vaginal porton of the cervix uteri. This little operation had been already performed once before without any ill effect, but upon the present occasion, ten minutes after the application had been made, the patient was seized with violent febrile action, and slight delirium. In half an hour she was seen by the author, who found her skin, and especially that of the face and upper part of the body, almost of a scarlet red. The temperature of the surface was considerably raised, and her pulse beat 136. She continued much the same during the night, and when seen next day, the face, neck, chest, arms and thighs exhibited with the intense redness, innumerable urticaria elevations. In a day or two the exanthem had entirely disappeared, a distinct desquamation, however, taking place on the face and neck. As this was the first case the author had ever seen in which these symptoms followed the application of the leeches to the cervix, he did not believe in their dependence upon this, and again ordered them to be employed. Four times this was done without any unpleasant occurrence, but on the fifth occasion the whole series of symptoms above described were reproduced, and that so rapidly after the biting of the leeches, that any doubt as to cause and effect could no longer be entertained.

In a second case, a woman, aged 28, was admitted into the Würsburg Midwifery Institution on account of chronic uterine infarctus, and five leeches were ordered to be applied to the cervix. Scarcely had they taken hold, when she complained of the most violent labor-like pains in the abdomen, and although these soon moderated in force, they were accompanied with such intense febrile action that the entire body glowed with heat, the pulse rose to 140, the carotids pulsated visibly, and the face, neck and chest exhibited an intensely red color, to which were added in a very short time a large eruption of urticaria elevations of a palish color. The eruption was accompanied by great headache, inclination to vomit and excessive lassitude, symptoms which continued to the following day, although the exanthem with the accompanying fever disappeared entirely after three hours' continuance. This patient often had suffered from urticaria at the menstrual periods, without, however, its being accompanied by such violent symptoms.

The third case occurred in the person of a young lady, aged 26, who, on account of long-continued chronic oophoritis and metritis, required blood-letting. In the course of sixteen months four or five leeches had been applied eight times. On the ninth occasion, an intense redness covered the skin, and the patient complained of the most violent pain in the head. The temperature of the surface was much raised, and it was almost entirely covered with innumerable, minute, prominent, white elevations. In the course of an hour these appearances gradually subsided, the headache continuing for twenty-four hours longer. The author is aware of a fourth case of the same kind, but is unable to furnish the particulars.

Professor Scanzoni believes that these cases deserve the attention of those occupied with the diseases of women, as well as of dermatologists. They admit of no other explanation than the irritation of the uterine nerves, caused by the bite of the leeches, induced an entirely unusual, and in its mode of origin inexplicable, disturbance of the vascular system, which again, in a mode which is to us equally unintelligible, gave rise to the production of the eruption of urticaria. In proof that these appearances were not produced as a consequence of any poison being conveyed through the medium of the bite of the leech, it is to be observed that similar symptoms never result from the application of leeches to other regions of the body, while it is to be observed that even very slight irritation of the sexual organs, as that produced by examination with the finger or speculum, or by the application of caustic, will, in many sensitive women, give rise to erythema of the face, neck, breast, etc., which disappears as rapidly as it comes on.—*Würzburg Medicin. Zeitschrifts*, band i, pp. 90–95.

NEW SIGN OF POST-PARTEM DETACHMENT OF THE PLACENTA. *By John Clay, M. R. C. S., etc., Birmingham.*—The rules usually given in obstetric manuals, and text books, for the management of the placenta, after the birth of the child, are—to wait for a pain; or to carry the finger along the cord to the os uteri, and, if its root can be felt, it may be fairly assumed that the placenta is thrown off, and may be easily extracted by gentle traction of the cord, with the aid of external manipulation. If these instructions be faithfully carried out, can we rely upon the facts elicited as infallible proofs that the placenta is separated from the uterus? Pain may mislead, as it frequently arises from other causes than contractions of the uterus; and even if the insertion of the cord can be felt, it is not always conclusive on this point, as the root of the cord may be sometimes felt when the uterus is in a flaccid condition, by using moderate traction on the cord, and yet the placenta be not thrown off. Besides, the patient often lustily complains of the smarting pains caused by the frequent examinations deemed necessary to ascertain the fact; and often she positively forbids such a mode of interference.

Four years ago I was led, from these causes, to investigate the subject, with the view of improving, if possible, upon the old mode of managing the deliverance of the after-birth. I thus ascertained certain facts, from which I came to the conclusion, that a very simple sign existed by which the separation of the placenta, after the birth of the child, might be indicated; and having tested it in upwards of nine hundred cases, I hope I may be considered to be fairly entitled to lay the results at which I have arrived before the profession.

Before dividing the umbilical cord, I always apply two ligatures, and make both sufficiently tight to prevent the occurrence of hæmorrhage. If the maternal part of the cord is now examined, it will be found to be in a flaccid condition, and almost free from blood; but if it be again examined, at an interval, say from one to three minutes, it will be found to have acquired increased specific weight, and that the vessels are more or less filled with blood. The one fact may be ascertained by poising the cord on the fingers; the other by slightly grasping the cord near the vagina, with the thumb and fore-finger of the left hand, and, with the fingers of the right hand, suddenly compressing it, when a well-marked sense of fluctuation is perceived underneath the fingers of the left hand—a kind of resiliance similar to the feeling produced when an elastic tube filled with fluid is suddenly compressed.

When the placenta is thrown off, or sufficiently detached to give rise to a tolerably free hæmorrhage, the cord loses its increased specific weight and the hydrostatic property just mentioned. These phenomena occur so invariably, that *the loss of the previously acquired hydrostatic properties of the cord after the birth of the child constitutes the sign of detachment* previously referred to.

The whole of the phenomena are manifested in three stages, viz: 1st, a state of flaccidity; 2d, a state of repletion; 3d, a state of flaccidity.

If the umbilical cord be tightly grasped by a spasmodic contraction of the os uteri, or by irregular contractions of the body of this organ, the *loss* of the particular hydrostatic properties may be delayed for a brief interval; but in a few seconds the spasm subsides, and those phenomena are produced which indicate the separation of the placenta, and that this structure may be safely extracted. These signs are not, of course, always equally marked in every case—often requiring experienced tactile management, in order to detect their presence. When the utèrus is in a flaccid condition, the phenomena are manifested in a very slight degree, but are still perfectly reliable. On the other hand, when the uterus is contracted, with some degree of firmness, on the placenta, they are so well marked that the most inexperienced may readily detect them. In cases of partially adherent placenta, the disappearance of the hydrostatic properties, after being once fully developed, and the failure to deliver the placenta by the usual manipulations, have always indicated to me the necessity for promptly adopting artificial detachment by the introduction of the hand. In twin cases, if the cord is firmly tied, I have invariably found that the signs persisted until the birth of the second child. In one case, where the hydrostatic properties disappeared, after being well marked, before the birth of the second child, I found, on examination, that the corresponding placenta was detached, and I at once removed it, which otherwise would probably have been suffered to remain. Neither mother nor child incurred any risk.

It sometimes occurs that the placenta is separated simultaneously with the birth of the child. In this instance, the first series of phenomena may be absent; and it may be prudent to wait before proceeding to extract the placenta, although it may be generally effected with safety.

The practical value of the application of these facts to obstetrics is obvious, as by merely compressing the cord in the manner previously indicated, the precise time of separation may be easily ascertained, the placenta at once extracted, and the patients thus freed from those frequent annoying examinations usually employed. The prompt delivery of the placenta, on the first efforts of the uterus, is very important, as this organ contracts then more efficiently, and the risk of hæmorrhage is not so great, and it may be fairly assumed that the puerperal convalescence is not so protracted as under a more dilatory proceeding.

To students, or inexperienced practitioners, it might be a safe instruction to impart—not to interfere in the extraction of the placenta so long as the hydrostatic properties herein defined are persistent. — *Dublin Quarterly Journal of Medical Science. Boston Journal.*

GONORRHŒA WITH ARTICULAR RHEUMATISM.—Gonorrhœal rheumatism is an affection as to the pathology of which surgeons still differ greatly in opinion. Sir A. Cooper is stated to have been the first surgeon who publicly described this affection, which he considers "not an unfrequent disease," and portrays graphically his first case. (Surgical Lectures, pp. 273–74). Sir Astley Cooper remarks, at the conclusion of this case: "Whether it is by absorption of the poison, or the constant irritation produced by the inflammation of the urethra, I do not know; but certain it is that gonorrhœa produces ophthalmia and rheumatism, and when not a single drop of matter has been applied to the eye." The concurrence of articular rheumatism with gonorrhœa is so often observed, and under circumstances so strongly favoring the belief in the kind of connexion arbitrarily called metastatic, that probably the majority of surgeons incline to the retention of the term "gonorrhœal rheumatism" in our surgical nomenclature, and hold to the theory which such a phrase indicates. These opinions are opposed by many modern surgeons, who see here nothing more than a coincidence of the two diseases, and consider that they have no causal relation. They are, however, strengthened by the observation of many cases which come under notice in the course of a wide experience, in which acute rheumatism attacks a patient suffering with gonorrhœa, who has never had any previous rheumatic tendency, and had not been subjected to damp or to any other ordinary causes of rheumatism; the discharge from the urethra disappearing as the joint affection is developed, and reäppering as it is cured. Sometimes these attacks of articular rheumatism, inaugurated by a first attack of gonorrhœa, are repeated on subsequent attacks of the latter. Most of these critical points were present in the case of J. B——, aged twenty-three, admitted into St. Mary's Hospital under Mr. Coulson's care. He was healthy and robust, and had contracted a gonorrhœal running some two months prior to admission, which still continued. He had not been exposed to the weather, and knew of no way in which he could have contracted rheumatism, but when admitted he was suffering from strongly-marked rheumatic pains and stiffness in the neck, with articular rheumatism of the right knee-joint. He was fearful of being laid up for a long time, as during a previous attack he had suffered greatly from rheumatic inflammation of the left knee. Mr. Coulson ordered for him ten grains of Dover's powder and two grains of calomel at night, with three grains of iodide of potassium and ten of the bicarbonate of potash in camphor mixture every four hours; local warmth and anodynes to the painful parts. The pains and swelling abated under this treatment, and tonics were successfully employed to bring about convalesence. The discharge from the urethra now becoming troublesome, Mr. Coulson ordered a weak solution of nitrate of silver to commence with—one grain to four ounces; and this being properly regulated in strength, and a careful diet observed, the man was discharged cured.

This case was one which seemed to illustrate well most of the points which have induced a belief in the direct connexion between gonorrhœa and rheumatism. The treatment which succeeded so well here was simply directed to the cure of the rheumatism in the first instance, leaving the gonorrhœa, no longer inflammatory, to be subsequently treated by injection.—*London Lancet.*

VERSION WITHOUT INSERTING THE HAND IN THE UTERUS.—*To the Editor of the Lancet*—SIR: I think the following case so fully confirms the value of the method of turning described by Dr. B. Hicks, that I beg its insertion in your journal.

Early on the morning of July 24th, I was summoned by a midwife in this neighborhood to go over to Woking to see a young woman under her care, and who was in a dangerous state from flooding. I found the patient, a delicate person, aged twenty-eight, in labor with her fourth child, in a most critical condition; face and lips pallid; extremities cold; pulse 140, small, and tremulous. She had had only three slight pains, but had lost a large quantity of blood. I found the vagina filled with coagula; the os uteri dilated to the size of a crown piece, and entirely blocked up by the placenta. On passing two fingers between the wall of the uterus and the placenta, I felt a cephalic presentation, the membranes being unruptured. Knowing that no time must be lost, I determined on trying the plan of version suggested by Dr. B. Hicks. With my two fingers I made steady pressure on the head, while, with my left hand placed on the fundus uteri, I bore down the nates by gentle impulsive pressure. The head at once receded, and in two or three minutes I felt a foot presenting. Rupturing the membranes, I seized it, and directly afterwards the other; and, with a little firm traction brought the breech down into the cervix. I now waited, and gave brandy and gruel. My patient said she had scarcely felt what I had done to her, and appeared more comfortable. In ten minutes there was a slight pain, when I delivered her of the child (still-born); the uterus contracted freely, and in five minutes I removed the placenta, no hæmorrhage following. The patient remained in a rather alarming condition for some hours, but by the use of stimulants, etc., gradually rallied, and has since entirely recovered.

I believe that the patient was saved much distress and pain, and that the shock to the system was greatly diminished, by my not being obliged to pass my hand entirely into the uterus; and further, had I done so, I must have separated a larger portion of the attached placenta, whereby there would have been more hæmorrhage, which she could not have borne. To me it has been a most satisfactory case, and I think it bears strong testimony to the value of the method.

I am, sir, your obedient servant,

Ripley, Surrey, Nov. 1860. H. Shirley.

Ventilation at Night.—An extraordinary fallacy is the dread of night air. What air can we breathe at night but night air? The choice is between pure night air from without and foul night air from within. Most people prefer the latter. An unaccountable choice. What will they say, if it is proved to be true, that fully one-half of all the diseases we suffer from, is occasioned by people sleeping with their windows shut? An open window most nights in the year can never hurt any one. In great cities night air is often the best and purest air to be had in the twenty-four hours. I could better understand in town shutting the windows during the day than during the night, for the sake of the sick. The absence of smoke, the quiet, all tend to making night the best time for airing patients. One of our highest medical authorities on consumption and climate has told me that the air of London is never so good as after ten o'clock at night.—*Florence Nightingale.*

THE TREATMENT OF ACNE.—*To the Editor of the Lancet*—SIR : I venture to give my opinion to your correspondent, "L.S.A.," who asks advice on the subject of acne. I believe it is generally more troublesome and painful when the stomach contains *too* much acid ; for I have found ten-grain doses of bicarbonate of potash, three times a day, in a tumbler of cold water, give great relief to the sufferer, applying at the same time cream locally. I find it also desirable to attend to the liver and bowels, and for this purpose I give three grains of blue pill and seven grains of compound rhubarb pill at bed-time once or twice a week.

For further information upon the subject of acne, I would advise "L.S.A." to read Mr. Hardy's "Treament of Acne," published in the French *Journal of Medicine* for August, 1860, Art. 5873, edited by H. Chaillou, M. D.

I am, sir, yours truly,

GEORGE SELYN MORRIS, M. R. C. S.

Tottenham, 1860.

TO THE EDITOR OF THE LANCET—*Sir :* In reply to "L. S.A.," who states that he has tried various remedies, both local and constitutional, in the treatment of acne punctata with no marked success, I would beg to suggest his trying the administration of the following prescription, which I remember my late clinical teacher, Dr. Gull, used with much benefit to his out-patients at Guy's Hospital: Sulphate of iron, one grain; sulphate of magnesia, one drachm; dilute sulphuric acid, fifteen minims; pimenta water, one ounce; three times a day. The local treatment consisted in squeezing out the secretions daily, and washing the skin well with Castile soap and warm water, and followed by friction with a dry towel. If there be any pustules, they may be lightly touched with nitric-oxyde of mercury ointment every night. Hoping these few remarks may prove useful to your correspondent,

I remain, sir, yours truly,

Birmingham, 1860. JOHN CANDY, M. R. C. S.

INSECT POWDER. *By Joseph Abel.*—A vegetable powder, under the name of Persian Insect Powder, has lately been introduced into the drug market, for the extermination of insects, vegetable parasites, etc. Until recently, the botanical source of this powder has not been known. For a number of years it was erroneously considered to be a native of Persia; but it has been traced beyond question by Dr. Koch, as having its origin in the Caucasian provinces, and to be the contused blossoms and flowers of Pyrethrum Roseum and Pyrethrum Carneum. It is of a yellowish gray color, perfectly odorless, yet slightly irritating the nostrils; at first almost tasteless, but afterwards leaving a burning sensation upon the tongue. The high price obtained for it, taken in connection with the scarcity of the article, has induced dealers to adulterate it with plants of similar characteristics, such as chamomile flowers, fleabane, etc., but the presence of these extraneous substances can without difficulty be detected by the peculiar odor, and from the fact, that in proportion as these substances are introduced, the efficacy of the powder is impaired.

From experiments lately made in Europe, it has been sufficiently demonstrated, that the plant can be propagated from the seed, and that it will thrive well in a climate similar to that of our Northern States.

I have recently been informed by a gentleman who obtained some of the seeds of this plant from the Agricultural Bureau at Washington, that the plants therefrom are in a flourishing and prosperous condition.

As its effects for the destruction of bugs, roaches, parasites on delicate plants, etc., has been fully established, and it being otherwise harmless, its introduction into general use would be of great importance to families and horticulturists, from the fact that it would exclude the use of poisonous articles, now resorted to for such purposes, which are often the cause of serious accidents.

Pittsburgh, August 31, 1860.

Curious Death.—Two men in France took shelter in a barn for the night. In the morning one of them was found dead, with severe injury to the head. The comrade was at once arrested, and told some "cock and bull" story about the terrible storm of the night in question, and attributed his companion's death to the effect of a thunderbolt. He was not credited, and was in a fair way to be executed for the supposed crime. A scientific gentleman, hearing of the circumstance, examined the place, and found a hole in the roof of the barn, and an aërolite close to the spot where the deceased had slept on the night in question. The innocence of the accused was at once considered as established, and he was released.

MEDICAL SECESSION.

Since we had all editorial matter printed, a friend has handed us the *New York Herald* of the 19th inst., from which we extract the following version of the medical school trouble in New York. We desire to do no man, or set of men, injustice, and give our readers both sides of the question. Last year, our Southern schools were accused of mean complicity with seceding students, and we then determined to publish every item in connection with similar movements, which might appear reliable :

> Shortly after nine o'clock, yesterday morning, Dr. Aylette, accompanied by his party, entered the college, notwithstanding the prohibitive letter which the faculty had sent him, and began in a boisterous style to discuss the *Herald* report, and also the course that ought to be pursued. One gentleman announced the reception of a telegraphic dispatch from Dr. Frost, President of the College at Charleston, S. C. On opening the dispatch, the contents were found to be as follows :
>
> "We will be happy to receive all who may come, but payments will be required for the tickets of the course."
>
> This announcement threw a cold blanket on the enthusiasm of the Ayletteites. The fact that payments would be demanded dispelled the beautiful vision conjured up by Dr. Aylette's confident assertion that he would procure all the seceders diplomas at five dollars *per capita*, without regard to the extent of their medical acquirements. Where shall we turn next ? appeared written on the faces

of the disappointed. "Where shall we go, gentlemen?" exclaimed Dr. Aylette. "Let us go somewhere else; let us telegraph to some other place."

A student suggested that they would be received at Richmond with open arms. "To Richmond, then," was the general exclamation that followed. Our reporter was prevented from hearing the result of the Richmond proposition by another exciting episode which followed immediately:

"Is Mr. Grady here?" asked Dr. Aylette.

"Here!" responded a voice, which was supposed to belong to the individual sought for.

"What right, Mr. Grady," demanded Dr. Aylette, addressing the owner of the voice, "what right had you, at the meeting last night, to make that infamous statement appearing in this morning's *Herald* about me discounting your money at ten per cent., and refusing to do it for five per cent?"

Mr. Grady explained, in a somewhat frightened manner, that he had never so stated, and, in fact, that he had not attended the meeting in question at all.

It was explained that a Mr. Herring, of North Carolina, was the guilty party. Mr. Herring was, therefore, sought out and confronted with Dr. Aylette, who, in an excited way, demanded an explanation. Mr. Herring did explain himself, but evidently was not altogether easy in his boots, not liking his position just at that particular moment at all. Mr. Herring, however, made some sort of an explanation, but was evidently too much excited to make himself lucid.

Thereupon Dr. Aylette launched forth into a wild, tragic invective against the faculty: "This is one of the charges, gentlemen, which the faculty have brought against me, but can't sustain. I am determined not to leave this building until justice is done me. If the faculty want fight, I will give it to them. Come on Macbeth! Come on Macduff! as Shakspere says. Gentlemen, I am excited, I know; but I can't help it, when I think how I have been wronged and insulted. Come, let us have a meeting. Put up a notice (addressing a friend close at hand) for the students to meet me in half an hour. I want to expose this matter. Come, let me have a drink first. I must have a glass of water."

So saying, Dr. Aylette withdrew for a while, and shortly after the gong sounded for Dr. Metcalfe's lecture. This lecture was allowed to proceed in quietude until just near the close, when Dr. Aylette and his party marched into the room in a noisy manner, tramping and causing the utmost confusion. Professor Metcalfe, however, coolly proceeded till the expiration of his hour.

No sooner was the lecture concluded than Dr. Aylette rose to address the students. This speech was a rehash of his grievances, and therefore needs no further mention. But a scene of excitement followed, which perhaps was not epected.

Dr. Lawson, of Virginia, the gentleman who presided at the meeting in favor of the faculty, sprung to his feet to reply to the remarks of Dr. Aylette. He was proceeding to defend Professor Draper, and to denounce the conduct of his opponents, when a student, named Applewhite, from North Carolina, struck at him two or three times with a club. With the quickness of thought he turned on his assailant, and was pommelling him in no very pleasant fashion, when some of the friends of Applewhite rushed to his assistance Applewhite was evidently overmatched by the resolute defender of the faculty, and would have been punished soundly, but for the interposition of his friends. A general rush and a few knock-downs followed, when the combat was terminated by the friends of Dr. Aylette retreating from the room. Dr. Lawson then took the platform, and delivered an eloquent and impassioned speech, in which he fiercely denounced the cowardly conduct of the Ayletteites. He said that no one but a coward would assault an unarmed man with a club, and that of course the satisfaction acknowledged among gentlemen could not be demanded of a person like Applewhite. In conclusion, he expressed himself determined to sift the business to the bottom, and called upon the students to meet him in the afternoon, when he would see justice done to all parties.

It is needless to add that this scene carried the excitement up to the feverish point. Nothing was thought of or discussed for the day but the case of Dr. Aylette and the action of the friends of Dr. Draper.

At half-past four o'clock the students repaired to the lecture rooms of the college, which was lit up expressly for the occasion. The room was very well filled, some four or five hundred persons, mostly students, being in attendance. The friends of Dr. Aylette were also on hand, crowded together in the vicinity of the heater, but keeping themselves very quiet and orderly. Dr. Aylette himself was, however, not present.

After about half an hour's delay, the officers of the meeting, headed by their chairman, Dr. John W. Lawson, made their appearance, and ascended the platform.

Dr. Lawson said that, in conformity with the proclamation which he had made in the morning, he now came forward, not to abuse, insult or malign any one, but to vindicate the sacred cause of justice, to stand by honor and truth, and to support one who has been grossly attacked and insulted. He was present to adduce facts in defence of the character of one who had been wronged, reviled and persecuted. (Tremendous cheers.) He would not detain them longer with any remarki of his own. He had that day an interview with members of the faculty, and the result of that interview he would proceed to publish to the meeting. The chairman then proceeded to read the following statements from the professors of the college:

Dr. Metcalfe states that a gentleman—Mr. Carter, of South Carolina—tendered him in the early part of December $15 in North Carolina money (at that time at a discount of ten per cent.), in payment of the fee for the session to the course of lectures on the "Institutes and Practice of Medicine." Dr. Metcalfe asked Mr. Carter if he had brought the money with him from home, or if he had got it in New York since coming on to attend the lectures? To this Mr. Carter answered that he had brought on to defray his expenses money in the shape of drafts on New York city banks; that he had deposited these drafts with Dr. Aylette, and that Dr. Aylette had given him the depreciated notes with which to take out his ticket. Mr. Carter promised to tell Dr. Aylette for Dr. Metcalfe that he could not receive the depreciated notes, and that he did not approve Dr. Aylette's course in the matter. Mr. Carter took the notes offered Dr. Metcalfe, and promised to pay for the ticket as soon as he should receive the money from Dr. Aylette. Subsequently, on two occasions, Mr. Carter has apologized to Dr. Metcalfe for not having been able to get his money from Dr. Aylette. Dr. Bedford states that in the early part of December, Mr. Coleman, one of Dr. Aylette's students, in his (Dr. B.'s) presence, said to Dr. Draper, President of the Faculty, that he regretted not being able to take out his tickets, for the reason that he had deposited his funds with Dr. Aylette, and was fearful that the doctor was about "to burst up." Dr. Draper replied, "You had better see Dr. Aylette, and tell him from me, that this is all wrong and cannot be tolerated," or words to that effect. Dr. Draper added, "Mr. Coleman, you shall not lose your lectures, and you shall have a pass ticket until you can get funds"; and my impression is that Mr. Coleman replied that he would not be able to take out his tickets until he should have received money from home. On the morning of December 18, a gentleman of Dr. Aylette's class called at Dr. B.'s office, and said that he was in a very bad position; that he had deposited his funds with Dr. Aylette after arriving in New York, and that he now was unable to purchase his tickets. Dr. Bedford asked him if Dr. Aylette still held his money. He replied that he (the student) had drawn a portion of it, and that the balance, more than sufficient to pay for his tickets, remained in Dr. Aylette's hands. Dr. Mott states, on several occasions within the past fortnight, students of Dr. Aylette have tendered him (Dr. Mott) uncurrent money, partly depreciated, in payment of fees, the students assuring Dr. Mott that they had funds in drafts on New York city banks, which they had deposited with Dr. Aylette, and that Dr. Aylette had given them the uncurrent funds in lieu of those deposited by them. Professor Post stated that, to the best of his recollection, students had on several occasions informed him that they had received drafts on banks in this city, and after collecting the funds they had deposited the same with Dr. Aylette, and had received from him in return uncurrent money, on which there was considerable discount, for the purchase of their tickets from the professors.

The chairman also read the following extracts from the memoranda of the faculty of the Medical Department of the University of New York.

Mr. B. F. Coleman states that he has deposited his money with Dr. Aylette, and cannot get it refunded to him again to take out his tickets.

Mr. C. F. Mallvicks states that he deposited his money with Dr. Aylette, and cannot get it refunded to take out his class tickets, because the business firm to whom Dr. Aylette has lent it is unable to repay him.

Mr. J. P. Gibson could not take out his tickets, because of Dr. Aylette having his money.

Mr. J. E. Fry the same.

There was an interview between Professor Bedford, Dr. Aylette, and a gentleman to whom Dr. Aylette had lent money, and who had not been able to repay it.

Three years ago a committee of the faculty, consisting of Professors Mott, Draper, and Bedford, had an interview with Dr. Aylette, to remonstrate with him, among other things, upon his practice of taking current funds from students, changing them into funds bearing a heavy discount, and offering such in payment. On that occasion he promised that the like should not occur again.

After reading the above documents, the Chairman in an eloquent manner appealed to the students of the College to come to the rescue of their faculty, and to endorse the course taken by their beloved Professor and friend, Dr. John W. Draper. (Enthusiastic cheer.s) In conclusion, he said he would read certain resolutions, which ought to be unanimously adopted by the meeting. The speaker then read a long preamble, setting forth the facts of the difficulty, and denouncing the conduct of Dr. Aylette's friends in the publication of matters which should have been kept perfectly private, concluding with the following resolutions :

Resolved, That from the evidence we have, we believe

Prof. Draper was justifiable in propounding the inquiry contained in his letter to Dr. Aylette.

Resolved, That we heartily deplore the resignation of our distinguished and esteemed President and Professor, and earnestly request him to resume his position in the University.

Committee—John W. Lawson, of Virginia; Thomas Lasseter, North Carolina; E. Kershner, Maryland; S. G. Atwood, New York; A. H. Sanders, Mississippi; H. M. Laney, Maryland.

The resolutions were adopted amidst the greatest enthusiasm, and without a single dissentient voice, even among the friends of Dr. Aylette. On motion, it was subsequently agreed that all present should attach their signatures to the resolutions, and that the latter should be printed and delivered to Prof. Draper. The students leaped forward with the utmost alacrity to sign the resolutions, and in the course of an hour nearly all present had attached their signatures to the document sustaining the faculty.

The meeting terminated thus quietly, without any demonstration on the part of those—if there were any—who still sided with Dr. Aylette.

Our reporter was reliably informed that the developments elicited at the meeting have so changed the minds of many of the Southern students who strongly sympathized with Dr. Aylette that they have determined to remain and finish their course at the University.

TO THE EDITOR OF THE HERALD.

UNIVERSITY MEDICAL COLLEGE,
NEW YORK, Dec. 18, 1860.

My name having been used by the faculty of the University Medical College to substantiate certain charges brought against Dr. Aylette, I deem it a duty which I owe to him, as well as to myself, to state that I have never made any statement, either to Dr. Draper or any other member of the faculty, or to any other person, to warrant them in using my name in any such connection; and such use of my name is entirely unauthorized, and without foundation in truth or justice.

D. F. COLEMAN, Alabama.

NEW ORLEANS

Medical News and Hospital Gazette.

VOL. VII. FEBRUARY, 1861. NO. 12.

A CLINICAL LECTURE

ON THE POST-MORTEM APPEARANCES OF THE HEART, IN THE CASE WHICH WAS THE SUBJECT OF THE LECTURE PRINTED IN THE LAST NUMBER OF THIS JOURNAL, ETC.

Delivered in the N. O. Charity Hospital,

BY AUSTIN FLINT, M. D.,

Prof. of Clinical Medicine and Medical Pathology, in the N. O. School of Medicine.

Gentlemen: I shall devote the lecture of to-day to diseased organs removed from the body after death, in cases which you have had the opportunity of observing in my wards. I need hardly remark that the results of autopsical examinations form a very important part of clinical teaching. To connect with the study of the phenomena during life, the post-mortem appearances in the cases in which our efforts to save the patient prove unavailing, is of incalculable importance to the medical student In this way facts are known and impressed in a manner which they can never be by mere reading or didactic instruction. The facilities in this Hospital for the study of morbid anatomy are very great, and are to be ranked among the most valuable of the extraordinary advantages for practical instruction which the institution affords.

I shall first exhibit the heart taken from the body of a patient who was made the subject of a clinical lecture some time ago. This lecture happens to have been one selected for publication, and is contained in the *Medical News and Hospital Gazette*, the number for January. The patient has died since that lecture was in print, and it will be interesting to see how the morbid appearances correspond with the conclusions based upon the physical signs which were then pointed out. Let me recall the prominent points which you will find in the printed lecture just referred to. The patient had general dropsy and marked lividity of the prolabia and face. He presented a strong jugular pulse, which was both auricular and ventricular. The evidence of enlargement of the heart was present, especially at the base, and on the latter fact was based the inference that the auricles more particularly were dilated. He had a mitral direct and a mitral regurgitant murmur, and on these signs was predicated the conclusion that there existed mitral insufficiency and mitral contraction. I ventured to go somewhat farther than this in the diagnosis. The mitral direct murmur had a character which I described as blubbering, from a resemblance to the sound produced by permitting the lips to vibrate with a current of air from the mouth. I have noticed this character of murmur in cases in which the two curtains of the mitral valve were found to be united at their sides, leaving a contracted, slit-like aperture, resembling a button-hole. I stated that I thought this species of contraction probably existed in this case. Moreover, the patient was affected with epilepsy, and I said that it would not be surprising if he died in a paroxysym of epileptic convulsions.

The lecture devoted to this case was given early in the session. The patient was admitted into Hospital in the latter part of October. He was treated with tonic remedies, and his condition was somewhat improved. The dropsy and the lividity diminished. He reported better, until on the 20th of December he had a recurrence of epileptic convulsions. He had several paroxysms in the course of the night and the following day. After these ceased he was much prostrated. He complained of fatigue. The lividity became more marked. The pulse was extremely feeble. Finally, he became delirious, and wished to leave the Hospital. Death took place by asthenia on the fifth day after the recurrence of the epilepsy.

I now exhibit the heart. You see at once that the organ is enlarged; yet it is not very much enlarged. It weighs 16½ ounces. The transverse diameter of the ventricles is 5½ inches. The vertical diameter is 5 inches. The auricles are especially dilated, and about equally; they would contain a fair-sized orange. The right ventricle is moderately dilated. The left ventricle is not dilated; the cavity, indeed, is below the usual size. The walls of this ventricle are hypertrophied, measuring at the thickest part ⅞ of an inch.

Directing attention to the valves, the aortic are slightly thickened and contracted. The pulmonic valves are normal, the tricuspid valves are normal, and the tricuspid orifice is large, admitting readily three fingers.

At the mitral orifice we find the lesions which were anticipated. The two curtains are united at their sides, forming the button-hole contraction. The orifice is so much contracted that the end of the little finger cannot be pressed through it. I find no cretaceous deposit on the ventricular aspect of the curtains, and a small patch only on the surface within the auricle.

The foramen ovale is closed. The ascending vena cava, at the opening into the right auricle, is extremely large, the diameter near the orifice being two inches.

Now, I shall ask you, gentlemen, to read the printed lecture, previously devoted to this case, not because I am anxious to convince you of my own skill in diagnosis, but in order that you may be properly impressed with the reliability of the physical signs in predetermining the nature and seat of the lesions which the autopsy has disclosed. These signs are sufficiently simple and easy of application. A little attention will enable you to make them practically available.

With the morbid appearances now before you, which this heart presents, you can easily understand the physical and vital phenomena present during life. You can see how the blood propelled through this button-hole slit, by the contraction of the auricle, produced a vibration of the united curtains, giving rise to the blubbering mitral direct murmur, and how the mitral regugitant murmur was caused by a retrograde stream of blood from the ventricle into the auricle, with each ventricular contraction. You can understand that in consequence of the contraction and regurgitation at the mitral orifice, the left auricle must have been over distended, and at length dilated to its present size ; that, in consequence of this over distension and dilatation, pulmonary congestion must have ensued ; that, as a result of pulmonary congestion, over accumulation, hypertrophy, and at length, dilatation of the right ventricle, was the next effect; that, over accumulation and dilation of the right auricle necessarily resulted from over distension and dilatation of the right ventricle, and that dilatation and over distension of the right auricle involved congestion of the systemic veins over the body. It is intelligible, that with venous congestion, thus induced, general dropsy should have occurred, and lividity from the condition which belongs to cyanosis. The occurrence of the jugular pulse, synchronously with the contractions of the right auricle and ventricle, is explained by the dilated vena cava and the large tricuspid orifice. The small size of the radial and carotid pulse is consistent with the fact, that owing to the mitral contraction and regurgitation, a small quantity of blood only was propelled into the arteries by the contractions of the left ventricle.

The recurrence of epilepsy in this case proved as unfavorable as had been anticipated. The patient, it is true, did not die in a paroxysm, but he never recovered from the effects of the repeated convulsions, and died on the fifth day after they took place.

The other specimens before me, gentlemen, are—first, a liver containing a large abscess, which would eventually, had the patient lived, evacuated through the pulmonary organs; and, second, the small intestines, taken from two subjects, one dead with phthisis, and the other with typhoid fever; the intestines from the former present tuberculous ulcerations, and those from the latter the ulcerations characteristic of typhoid fever.

[The portion of the lecture, devoted to these subjects, is deferred.]

CASE OF DELIRIUM TREMENS,

TREATED WITH LARGE DOSES OF THE TINCTURE OF DIGITALIS,

New Orleans, Charity Hospital, Service of Prof. Flint.

[Reported by L. E. Profilet, Resident Student.]

The patient, William C., a laboring man, aged 34, was admitted into the Charity Hospital, December 30th, 1860.

He stated that he had been in the habit of drinking a great deal for some time, but that he had never had delirium tremens. When he entered he had been drinking for five days, but continued at work. He could not tell how many drinks he took a day.

He was intoxicated when admitted. He appeared very feeble, and had much the appearance of a man with congestive chill.

He did not manifest any symptoms of delirium until the second day after his admission, January 1st. He was not violent during the day, but was, evidently, not in his right mind. He was allowed a little brandy. Half a grain of the sulphate of morphia was ordered.

The morphia did not quiet him, and during the night he was very delirious—so much so that it became necessary for some one to watch him, to keep him in bed.

January 2d, he was still delirious. He slept none the night before. He was ordered two drachms of the tincture of digitalis every four hours, until he slept. He took four doses—in all one ounce—before any effect became manifest. Soon after taking the fourth dose, which was given him at 9, p. m., he went to sleep and slept during the whole night.

In the morning he was perfectly rational, and said he felt well. No medicine was ordered.

The next morning, January 4th, he complained of diarrhœa, for which he was ordered one scruple of bismuth, three times daily. The diarrhœa continued one day longer.

He remained two days longer in the Hospital, when he was discharged quite well.

PROLAPSUS RECTI.

New Orleans, December 29, 1860.

To the Editor of the Medical News and Hospital Gazette:

Sir: Having met with an instance of gratifying success, in the treatment of *prolapsus recti*, by means, so far as my knowledge extends, never before adopted, you may, perhaps, consider it meet to lay before your readers the notice of the case which I subjoin.

W. M. B., six years old, had, for over three years, suffered from prolapsus, of at least two inches in extent, on every occasion of going to stool. As no further ill effects followed the habit than those dependent on the necessity of attending to the return of the intestines, the child being in all other respects healthy and robust, and, as an elder child of the family, after being similarly affected up to the age of five years, had recovered without special treatment, no serious interference with the case was attempted. It was hoped that time would lead to all that was desired. For the past year, however, the amount of prolapsed intestine had been gradually increasing, and it was therefore resolved to take the case in hand. I was about to resort to the local use of astringents, when it struck me as probable that some mechanical means might be devised by which the descent of the intestines would be prevented without material interference with defecation. In pursuance of this idea, I had, in a piece of board some fifteen inches square, a seat-hole cut to suit the size of the child; crossing the hole equi-angularly at its centre, I tacked to the board three pieces of tape a quarter of an inch in width ; and I directed that the child, when desiring to go to stool, should be placed on a high seat, with this prepared board over it, so that the anus should coincide with the centre of the hole, and that he should be required to make an effort to defecate in this position. It was found, that notwithstanding a few minutes persistence in endeavoring to force him to do this, he could not. He was then allowed to move the anus over one of the vacant spaces, when he evacuated easily, without protruding the intestine. This course was pursued for a few days with the same gratifying result. The prepared seat was then abandoned, to see whether the prolapsus would recur without it. It did not. It is now a month since the adoption of the treatment, and the child appears to be perfectly cured. The bowel never descends.

Permit me, in deprecation of criticism, to say that I have no doubt whatever that this treatment will be available in certain classes of cases alone—only too limited, I am sorry to feel convinced. If it be found at all useful to others, however, I shall be pleased to have called attention to it.

I do not pretend to be satisfied as to the mannner in which the treatment effected success ; but the circumstances suggest it to my mind as probable that the inconvenience which the child experienced on being required to defecate in spite of such an obstruction as that described, led to an unconscious exercise of volition sufficient to control the sphincter and other muscles, on the undue relaxation of which the prolapsus depended ; and, in consonance with this view, I direct him now to be told that he must not permit the bowel to come down.

Your obedient servant,

James Burns, M. D.

A CASE OF PLACENTA PRÆVIA,

By James W. Fair, of Mansfield, Louisiana.

A few days since I was called to see a negro woman, Mary, the property of Col. W., and in her seventeenth pregnancy. She had been in labor for twenty-four hours. Her pains, however, were slight for the first fifteen hours. I found her pains regular and strong, without much hemorrhage. In making a vaginal examination I found the os uteri well dilated and soft. The membranes had been ruptured, and the head of the child and the placenta were presenting together.

I felt the edge of the placenta, protruding from between the child's head and the cerivx uteri, spread over nearly the whole circumference of the os uteri, and projecting several inches in front of the child's head. The head was in the first position.

I proceeded to push the projecting part of the placenta upwards from between the child's head and the cervix uteri, it being pretty firmly held by the presence of the head.

This I succeeded in doing, first passing my fingers along the whole circumference of the placenta as well as I could, and breaking up the placental attachments. As the placenta receded, the space left was sufficient for my fingers to follow. I then managed to retain it in this position, above the superior strait, until the child's head descended sufficiently to occupy it, which it did rapidly, and delivery was accomplished in a few minutes. After making my examination and finding what I had to contend with, I immediately applied a bandage around her, so as to use pressure by tightening it before the expulsion of the placenta.

I ligated and cut the cord, and waited a short time, overlooking the necessary attention to the dressing of the child, etc. I then found the placenta lying in the vagina. With slight traction on the cord, it passed away without much hemorrhage. It was wider and thinner than usual. I gave her a dose of laudanum, remained two hours and left her comfortable, as well as grateful for her safety.

SPECIAL SELECTIONS.

A LECTURE,

INTRODUCTORY TO THE COURSE OF PHYSIOLOGY, AT ST. THOMAS'S HOSPITAL.

By WILLIAM BRINTON, M. D., Surgeon to and Lecturer on Physiology in that Hospital.

GENTLEMEN: To-day I propose to begin the Course of Physiology by a few allusions to the nature of the subject itself, prefatory to a brief description of the special purposes with which we undertake the study, and, therefore, of the mode in which it will be our duty successively to treat of the leading divisions, and to group its more important details.

The word *physiology*, signifying, as it does, the description of Nature, may well seem to have too wide a meaning for a science, which, far from ranging both the kingdoms of Nature, confines itself to that division of the world around us possessing the characters we sum up by the word "LIFE"—a division which, to all outward appearance, constitutes much the smallest part of the substance of the universe. And, hence, some have proposed to substitute for "physiology" the more exact term BIOLOGY—the science of life. The older and vaguer word, however, being still retained in common use, I shall not venture to substitute the more appropriate one. And, indeed, the very defects of this term "physiology" may be useful if they serve to suggest to you what seems to be implied in the word, that life is not only the higher development of nature, but is Nature itself; that part of the material creation, of which all its inorganic constituents are, as it were, merely the subordinates and ministers, often, indeed, the indirect results, the effete and decayed products; that life, in its various manifestations, offers us the deepest study yet presented to human observation; and, therefore, that it is in the contemplation of this particular division of the material world, that we might easiest and best fulfil the noble aspiration of the poet, and "look through Nature up to Nature's God."

The word physiology, then, must be taken conventionally as meaning "the science of life." But what *is* life?

And here it must frankly be confessed, that not only can we frame no definition, but that we have no knowledge. None that is sufficiently exhaustive or accurate, to call up any specific and fixed idea; much less an idea which, like the idea of a triangle, we can accurately reduce to words. In this respect, the embarrassment which thus meets us on the very threshold of our subject, does but, as you will find hereafter, forewarn you of difficulties which recur at every step of its study. Words it is imperatively necessary for us to weigh carefully; to consider why they were first adopted, in what sense they are now used, and what defects are inherent to them. To know well, that is say, what they stand for. But we must beware of expecting them to describe, much more to define, the various objects to which they are applied ; or we shall assuredly illustrate the second alternative of that Baconian adage, which says of them "words are the counters of wise men, but the money of fools."

Postpone, then, I would say to each and all of you—postpone for the present to substitute any plausible, but shallow definition for that complex, indefinable notion of life which your own experience and observation must have already given you. Or seek after such a definition, if you seek it at all, not at the beginning but at the end of this course. Look upon it, not as a scale ready beforehand, to which you are to refer the various details of organization which we shall study, but rather as the end and conclusion of the whole matter. Try, if you must, to infer it from its innumerable phenomena ; but do *not* try to dwarf these or their vast sum to any anthropomorphus standard, or to mutilate them on the Procrustean bed of our human ignorance and prejudice. Thus patiently waited for, no fear but that this great mystery of life will be sought after by us in a spirit of modesty and of reverence. Find it we shall not. But even if we only see it, as it is permitted to us to recognize so many other things ; even if all the light which science has hitherto brought into a focus only shows us life as though it were seen through a glass darkly—with dim, hazy outlines, vague alike in form and dimensions—depend upon it the vision will not have been useless, or the toils by which it is attained unrewarded, or the delay prejudicial. For it will have taught you the attitude in which alone Nature is to be studied, and will have saved you from many an error injurious not less to your future patients than to yourselves. Above all, it will have forced you, in your own education, to take in some degree the only path which has ever led man to true knowledge or lasting success. The confession of ignorance is the first step in the search after knowledge: the rejection of imperfect hypotheses must precede the attainment of truth. And the history of physiology, if read aright, teaches us not only to repel the idols of false doctrine, but to beware even of those treacherous allies whom knowledge has sometimes found in dominant ideas, themselves by no means wholly inaccurate. Life, for example, seems to be closely associated with the flux of bodily substance, the waste of the various tissues, the oxygenation of the bodily mass, the formation of carbonic acid, water, etc. But it would be rash, therefore, to assume that life is identical with these processes, or equivalent to these products respectively. On the contrary, looking merely to the scientific side of the question, we are no way in a position either to affirm or deny the possibility of a true conscious existence—an existence, that is, such as would be intelligible even to our limited comprehension—being created and maintained apart from them all.

And this brings me to notice another consideration, which well illustrates the uselessness, not to say danger, of being fettered by definitions in the study we are now commencing. You are aware that this course of anatomy and physiology is understood to have a special reference to the animal kingdom, and indeed to the human body. Hence, to define the common boundary of animal and vegetable life, and to exclude the latter from our consideration, might seem a necessary step towards opening up our subject.

Here, again, however, though it must not be understood that definitions are impossible, yet it can be asserted that it is not the beginner by whom such could be either used or appreciated. A rough outline we might easily draw. The possession of the faculties of sensation and motion; the consumption of oxygen to form carbonic acid; the evolution of a specific poison, urea; the maintenance of a more or less independent temperature; the reception of food into a digestive cavity; these and other characters might be easily adduced as proper to the animal, and the want of them to the vegetable.

But to what does all this amount? To little more, it may be suggested, than an elaboration of that distinction between the two kingdoms of Nature which even a child can observe and recognize. And you will find, as we go through the organs in detail, that each in succession offers us, either a plausible exception to the foregoing rules, or, what is equally embarrassing, such an increasing simplicity or suppression of organs as we proceed down the scale of animal life, that we are soon left in doubt as to their exact nature and products. The *Dionæa muscipula* catches flies—"like a Christian," as the sailor said of his blaspheming parrot—perhaps digests part of their juices. The *Mimosa pudica* almost fulfils the test of humanity propounded by Shylock, for when tickled, if it does not laugh, at any rate it curls up its features. Here are imitations of motion and sensation. The palm tree remains 20° or 30° below the temperature of the scorched earth around it in the desert. And while the phenomena of exchange of substance seem to offer a more uniform and valid distinction between the animal and vegetable, even these are sometimes open to doubt, and still more frequently fail to decide the question. There are traces, in many plants, of a systematic combination of oxygen, suggesting a formation of carbonic acid which is in striking contrast with that decomposition of carbonic acid, by virtue of which they restore oxygen to the surrounding air. While, to say nothing of the arbitrary and imperfect data on which, in many of the lower forms of animal life, our nomenclature of organs is often based—how is our chemistry to appreciate the urea, for instance, excreted by an animalcule of almost inconceivable minuteness? It is, therefore, scarcely to be wondered at, if we find that, in the case of some of the simpler organizations, there is still a difficulty in determining whether they belong to the animal or to the vegetable kingdom.

Animal and human physiology we shall not affect to distinguish, save in so far as we shall naturally lay greater stress, in the main, on the creatures whose structures offer the closest similitude to, or the best contrast with those of man. The human subject is, as it were, our standard of comparison, as well as the climax of our study. And only in the degree in which the organs of other animals foreshadow or indicate the uses of similar organs in man, shall we have to notice those details, the fuller and more scientific consideration of which is remitted to the lectures on Comparative Anatomy.

And, I think it is no fanciful antithesis which further suggests itself as the result of comparing those two aspects of physiology on which the medical physiologist, and the anatomist in the wider sense of this word, respectively have to dwell. The former, especially concerned with structure and organization, has for his object chiefly to determine the office of the several organs he successfully studies; a procedure which finds its closest parallel, as well as its most important application, in the effect of those lesions of their tissues which are connected with the various diseases he attempts to relieve. Organization, its development, its uses, the harmonious results of its perfection, the disturbances of health produced by its deterioration or decay, and the death which results from its destruction—these are naturally the chief objects of *his* consideration. The latter—especially in the last few years, which have revealed so much respecting the structure of the lower forms of animal life—would seem to be gradually arriving at conclusions which, at first sight, appear almost incompatible with those of his medical colleague. Were it asked, "What are the most striking results of modern research in comparative anatomy?" It might be unhesitatingly answered, "The extraordinary modifications of late gradually disclosed in functions hitherto presumed to be comparatively uniform; and the lower level thus assigned to organs as a whole, or rather, what is more accurate, the lofty but inscrutable share assigned to functions as distinguishable from structures. Generation, for example, is shown to be no single, special process, common to the whole animal series; but a function which, in different creatures, offers the most extraordinary—I had almost said contradictory—phenomena. While the structures concerned in respiration, locomotion and innervation, offer such strange contrasts of development in some of the lower and higher animals, that we can hardly escape the alternative; either that many functions may be regarded as essentially independent of all structure whatever—a proposition which, I am aware, almost involves a contradiction in terms; or that, at any rate, the very simplest and most structureless tissue to our existing means of observation, may yet possess everything necessary to effect a function which, in a higher quality or greater quantity of action, requires all the aids the most elaborate organization can confer. An animal which swims, feels, breathes, digests, absorbs, secretes, aye even propagates, at all points of its surface indifferently; and thus fuses, as it were, all the several functions of life into a single purpose executed by a single tissue, in the transparent membranous expanse of which the highest powers of our best miscroscopes fail to detect any differentiation of structure whatever ; offers, so to speak, a warning against presumption—a silent sermon on the inscrutable mystery of life and the limited extent of our knowledge—which we shall do well to carry with us through all our physiological studies, even to the very bedsides of those sufferers whom we must sometimes vainly attempt to heal.

Confessing, however, the imperfectness of our present means of information, and owning the probability that the several phenomena of life, as well as their great total, offer much which we cannot at present regard as the mere result or equivalent of histological details, we yet fasten our attention on the structure and office of the organs of the human body. And, in doing so, we not merely obey a law of mental progress—proceeding from the known to the unknown, from that which we have to that which we have not seen—but we specially fit ourselves for the practice of medicine and surgery ; for the relief, that is to say, of the various derangements and injuries to which the body, inside and outside, is subject.

I am almost ashamed to dilate upon this statement, as though it were questionable in itself, or as though your incapacity to appreciate it required its repetition and enforcement. Nevertheless, since it has been questioned, and that, too, by some holding no mean position in our profession ; and, since not only the general usefulness of this course, but the whole of its details are, I hope and believe, dictated by the relations of physiology to the healing art; you must bear with me for a few minutes while I briefly point out some of these relations.

Of these, the most immediate and irrefragible is that suggested by the very nature and seat of all diseases and injuries. If any one offered to mend your watch, candidly owning that he had never opened such an instrument, and was perfectly ignorant of its construction, he would exactly parallel the imposture of physic not founded on physiology. If he said, "This mysterious derangement of your watch is a separate entity, a something added to the original works, and, on the principle of 'similia similibus curantur,' I propose to give it an additional knock to that which has, let us suppose, deranged it; or to break, if I can, another spring or wheel, to remedy that already injured," he would be describable as a homœpath. If, on the contrary, he said, "In derangements of this kind, forcing into the interior of the watch a very long and strong lever, and giving it a good wrench, has been sometimes known to rectify the mischief; or cutting away one-half of the mainspring, has allowed the other to propel the whole apparatus," he would rank as an empiric—what many would still call "a sound practical man of the old school"—a school useful and venerable in the epoch in which it represented the existing acquisitions of medical knowledge, but simply an anachronism in this. If, lastly, he asserted that "a watch going right and a watch going wrong were governed by such very different laws of action, that the study of the one threw little or no light on the other," I think you would not find much difficulty in dealing with a sophistry which, applied to the study of medicine, would end in exalting the pedantry of the charnel-house into a system of physic ; in affecting to teach us how to cure disease by looking at what is incurable, and to preserve life by gazing upon the poor putrid relics of what was formerly its envelope.

Physiology, then, we study as being the very basis of the healing art. It alone teaches us what is disease—shows us how such slight and casual derangements of the corporeal functions as are too minute or transient to attract ordinary notice, have only to increase in degree, to claim our attention as downright maladies. It points out, in language which he who runs may read, that most of our diseases are thus founded upon our own ignorance or carelessness ; that they are often the inevitable results of a systematic disobedience of the laws of nature, either by individuals or societies. Nay, more, it offers us some analogical hints with respect to that awful and mysterious subject, the origin of evil ; and "justifies the ways of God to men," in so far as concerns many of even the most painful and dangerous maladies, by showing unequivocally how the very capacities of growth and development, of resistance to injury, and reparation of its effects, are inherently connected with the possibilities of disease ; so that the same arrangements which are constantly healing incisions, and reuniting fractures, occasionally permit pleurisy and pericarditis. And, lastly, it regulates, weighs and dictates all those appliances by which we have to attempt the cure of sickness, the relief of suffering, the restoration of health, and the prevention of death.

Let us follow this large assertion into detail. To say that the scientific character of medicine at any given epoch of its history might be estimated by the degree in which it took cognizance of physiology—or, rather, was based upon it—would, perhaps, be injudicious. For the science of life is still too much in its infancy, to permit that long retrospect, and specific contrast, which could alone sufficiently illustrate this proposition, true, as it undoubtedly is. Besides, if the patient is cured, it matters little to him, he would perhaps say, whether the process has been scientific or no. Indeed, even if he admitted that physiology is, as regards his physician, a general guide, and particularly an ægis against self-deception or quackery, he would probably add, that nevertheless, he would rather be cured by the quack than killed by the scientific practitioner.

It is by influences far more specific, and much less difficult, we may hope, for an educated public by-and-by to appreciate, that physiology rules over physic. In the history of medicine, as well as in the stories of those ignorant meddlers in all classes of society who furnish us with so much of our occupation, the worst of errors are always alleged to be based upon facts; the most ridiculous and mischievous treatment is always "*proved* to be efficacious by experienc." "Can I not believe my own senses?" indignantly asks the patron of billionths of a grain of charcoal or milk sugar! The patient was ill, took a dose, and it cured him. What more do you ask? What words can refute these facts? What arguments can invalidate such evidence; or, conversely, what can render it more conclusive?"

Our answer to this is simple enough. That recovery does not prove the cure, any more than death proves the homicide, of the patient by him who administers the supposed remedy. That a large proportion of the maladies are naturally recovered from, not only without any extrinsic or pharmaceutical remedies, but even in spite of the most dangerous and adverse treatment. That indeed, in rising from the most common and casual ailments—colds, coughs and diarrhœas—to such deadly diseases and injuries as pulmonary consumption or strangulated hernia respectively, spontaneous recoveries do but diminish in this percentage of frequency, and never fail altogether. And that it is precisely in estimating the general or particular probability of this event—and the margin, so to speak, therefore left for the action of remedies—as well as in judging of the operancy of remedies themselves, that our profession claims special knowledge; and denies to those ignorant of the human body alike in health and disease—aye, even to clergymen, members of Parliament, newspaper writers, and other authorities often considered infallible in this country—the ability to decide, off-hand, questions which have been but imperfectly and hesitatingly answered by thousands of the most highly-trained intellects the world has ever produced during ages of its history.

Yes, it must be owned that the best of us has need of all his judgment, all his experience, all his integrity, estimating the action of remedies! And I would add, even those members of our own profession, who have been most sceptical as to the curative influence of drugs, have not always gained, in respect of insight into the nature of disease and recovery, as much as they have lost in respect of usefulness as agents and promoters of this termination. They have sometimes sold their birthright of civic usefulness for what seems, after all, a very indifferent mess of scientific pottage.

Look, for example, to the language sometimes adopted by such sceptics; and consider whether there be not ground for imputing to them something more than inaccuracy of terms. The "natural history of disease"—the "*vis medicatrix naturæ*"—these, forsooth, are to be the props and mainstays of an expectant system of physic! Expectant, I fear, in many cases, as vainly as a countryman waiting for an opening at a London crossing, or as his classical prototype "*rusticus expectuns dum defluat amnis.*"

The "natural history of disease" seems to me a singularly dangerous phrase; implying, as it does, such an entity, such an independent existence of disease, the physiologist and pathologist alike concur to deny; an entity which, by the way, is the fundamental error of Homœopathy. A natural object may have a natural history. And the natural history of the human body would include its tendencies to disease. But the disease itself, strictly speaking, has none.

The "*vis medicatrix naturæ*" is also a phrase which requires great qualification. That there is a power, working by the laws of Him who is the source of all power, and often healing disease without human intervention, we have just asserted in the strongest terms. But do let us remember that it is a "*vis* NATURÆ," and therefore that it must not be limited to any single force intrinsic to the organism as a whole, but must be regarded as an aggregate, including all those circumstances which together make up the total operancy of Nature on the body. That the constitution contributes its share—and this, too, the larger and more essential—is not to be questioned. But, inasmuch as the absence or presence of any one of the other circumstances may turn the scale—inasmuch, for example, as a man sick of a fever might die because he was old, or dirty, or ill-fed, or harrassed; or might recover because he had light, air, water, food, and rest—I confess that I am so puzzled to distinguish the exact influence of the intrinsic and extrinsic conditions of recovery, that I would rather call them all "*vires medicatrices;*" and connect the name usefully with the fact by asking you to remember that it is our duty to endeavor to wield them all; or, at any rate, either to avoid those intrinsic conditions which oppose recovery, or to neutralize them, if unavoidable, by applying those favorable extrinsic ones which are in our power. There is no *vis medicatrix naturæ* which will enable an animal to live in a jar of carbonic acid. And really many of the conditions which produce or sustain disease differ in little but degree and complexity from the simple and extreme case. And though I am willing frankly to allow that many a patient would recover of fever in the wards of this noble hospital, even if the apothecary and physician left him without one grain of physic, yet I should not call any such a recovery an instance of the *vis medicatrix naturæ*. Left to itself, his constitution would probably have sunk under a *vis trucidatrix naturæ*, in the stifling atmosphere of some dark alley, or crowded noisome room. And its recovery, otherwise absolutely *ultra vires*, is ascribable to a medication no less potent than that of drugs, and quite as extrinsic to his own body —a modification for which we may thank the Great Physician, and these excellent institutions, which His religion and example have impelled our fellow-citizens to endow.

Disease, in short, implies the violation of physiological laws; and its removal can, in general terms, only be brought about by bringing the diseased organism under the conditions which physiology shows to be requisite for the maintenance of health. Physiology thus gives us— firstly, a pathway for those researches into the causation of disease, which are destined, we may hope, enormously to diminish suffering and death as a system of preventive medicine ; and secondly, a code of laws for our administration, the observance of which is necessary to preserve health, and therefore doubly necessary to restore it when it is already impaired or destroyed. Nor is it merely the simpler features and essentials of normal or healthy existence that we need to know. The harmony of the several functions, the assistance they systematically and constantly give each other, the vicarious services they mutually accomplish under extraordinary emergencies—all these, matters of the strictest physiological detail, are pregnant with interest and importance in the practice of medicine.

Lastly, the efficacy of the various drugs, and appliances which, in this institution at any rate, we are old-fashioned enough to regard as practically indispensable for the treatment of disease, likewise rests on a physiological footing. In specious consistency with his absurd notions of the entity of disease—though in flat contradiction to the simplest laws of matter—the homœopath pretends to give his drugs in doses so minute as to remove the disease without in any way affecting the constitution, its supposed seat. Rational medicine, however, while owning the complications, both as regards degree and kind of action, which disease may introduce, lays down this broad general rule respecting the operancy of the drugs she wields—that, in the main, their physiological effects in some sense suggest, illustrate, or even parallel, their therapeutical virtue: that they are useful chiefly by modifying, in the diseased body, the very same functions which they disturb and alter in the healty one ; through the instrumentality of which functions they limit or exalt those actions which, either by their excess or deficiency respectively, might endanger the further divergence of the diseased tissues from the healthy state. The sweating caused by opium, the exhilaration produced by wine, the increased absorption and secretion provoked by mercury, and the well-known effects of purgatives and astringents, all illustrate this law; and show how, even in the domain of empirical medicine, physiology is often the safest guide, and the truest test of what, as a matter of mere direct observation, could only be arrived at by hazardous chance, or proved by somewhat equivocal facts.

The simplest idea of life recognizes, in every one of the acts which we sum up by this term, a continual process of change in the substance of those tissues by which they are effected. Just as the force of the weight or spring is the condition of the movement which, however controlled or regulated, reappears in the hands of the clock or watch; just as in the steam engine, every movement of the piston, every revolution of the fly-wheel, represents a combustion or reärrangement of so much fuel, the forces originally inherent to which we may almost regard as translated into movement; so there is not an act of the living animal, not a sensation we feel or a movement we execute, not a breath we draw or a mental impression we receive, which does not represent the loss, and demand the replacement of a certain fraction of our bodily tissues. Furthermore, let this replacement fail, and, like the steam engine bereft of fuel, or the watch or clock unwound by mechanical force, the animal body falters in its activity, relaxes its energies, and finally has them arrested by death. In such a process of starvation, the impotence which is first felt in the organs of locomotion and of the senses, gradually extends to the more profound and essential agents of the organic existence, and the creature, first shorn of all the powers most characteristic of the animal, finally loses those essential to life, and dies. The moment of this solemn change inaugurates a new series of reactions in its tissues, which, by some intermediate stages of great interest, not without parallel in certain abnormal states of the living animal, soon attain a condition of indifference, so to speak, to all the various agents around them; obeying the laws of a simpler chemistry, which rapidly unlocks or decomposes their constituents into products more or less uniform in character, ultimately diffused into surrounding space, as water, carbonic acid, ammonia, nitric acid, etc., etc. The products thus released, however, are again taken up by the vegetable world; in whose tissues they are reconstructed into materials which, as the food of animals, are destined to reënter the animal body, and thus to repeat countless cycles of change, of combination, and of dissolution.

We shall find that the chief organs of the body fall naturally under two leading divisions, which, though in intimate mutual dependence, are conceivable and describable as separate from each other. The first division includes the intrinsic organs, or the agents of that continual process of change which wears out the old materials of the body, and builds up new ones to replace them. The second includes the extrinsic organs, which bring the animal into relation with the outer world, and which, though indirectly as necessary to life as the preceding, are yet so far collateral and subordinate to it, as that we may conceive of the maintenance of the mass of bodily tissues in spite of their suspension. Indeed, in the case of a pigeon or other animal deprived of its brain by an operation, we may see this independence in great degree carried out—the interchange of substance going on in the comparative arrest of all the functions of relation. Amongst the former we distinguish digestion, absorption, circulation, respiration, and evaporation, animal heat, secretion, nutrition. Amongst the latter, locomotion and innervation; with the various senses—sight, hearing, smell, taste, touch, and the voice—all of which latter may be regarded as offshoots of these two great functions. The function of generation, by which the animal, itself doomed to death as the term of its existence, maintains the species by the reproduction of an individual with an organization like its own, forms another division of our subject. And the subsequent growth and development of the young animal thus originated, naturally suggests a brief summary of that converse process of decay, death, and putrefaction, by which, after attaining its full growth, it gradually declines, perishes, and finally yields its substance once more to the world around it.

The purpose with which we study has now been pointed out. The means of yhysiological research may now be fully alluded to.

We will suppose, for example, that the function or office of any particular organ or tissue of the human body is the subject of inquiry. Let us see what, in such a case, are the channels and implements of research.

Its *anatomy* or structure, as revealed by dissection, would obviously be the first series of facts to establish. A tooth, for instance, has a shape, substance, and position, which together indicate its office: a nerve sends all its branches either to a muscle (an organ of motion) or to a region of the skin (organ of sensation) respectively. Or a whole organism (like that of a fish or a bird) is plainly constructed with reference to the act of swimming or of flight. And though, from the comparative length of the epoch during which anatomy has been practiced, you might fancy that this channel of inquiry was almost exhausted as regards the human subject and the higher animals, yet this is by no means the case, even as respects the more constant of organs; while in the instance of those tissues which, like vessels and nerves, are more subject to varieties of distribution, the numerous and accurate dissections necessary to deduce the normal arrangement, and the degree and frequency of its variations, are at present far from complete.

2. *Comparative Anatomy* would constitute the next means of research. In passing over the animal scale, we should find the organ supposed to be the subject of inquiry undergoing many modifications; in some creatures, perhaps, evincing a great increase of size and complexity, in others merging, through successive retrenchments of substance, and increasing simplicity of texture, into a condition in which we fail altogether to detect it. A particular nerve, for example, may, if it pass through a mass of muscle in a minutely branched condition, leave us in doubt whether its distribution is to this motor organ, or to that sensitive surface of skin or mucous membrane by which it is covered. Comparative anatomy may, in such a case, decide the question, by showing a larger development of the nerve on the one hand, and its decrease and disappearance on the other, in parallelism with a corresponding increase or decrease of the tissue it supplies. Thus the portio dura enlarges in consonance with that enormous muscular development of the face which forms the elephant's trunk; and the gustative nerve is reduced to a filament in the comparatively tasteless tribes of birds.

3. *Disease* often affords us equally valuable physiological information. Certain functions of the organisms are arrested or paralyzed by a given malady during life. An

inspection of the body after death reveals certain tissues as the seats of a lesion or destructive process. Other things being equal, the function before noticed to be arrested is probably that of the part observed to be involved in the lesion. Here, again, we may borrow an illustration from the nervous system. Anatomy traces the portio dura to the muscles of the face. Comparative anatomy points out that its variations of size concur with the varying development, in different animals, of those muscular structures of this part to which it is distributed. Disease frequently gives us examples in which the paralysis of these very muscles during life is associated with such a lesion of this nerve as can be verified after death. It thus affords conclusive evidence in confirmation of that derivable from the preceding sources.

Lastly, *experiment*, by means of which it is in our power artificially to vary the conditions of observation, adds a fourth implement of inquiry to those already specified. The mechanism of many parts of the body, for example, may be illustrated, and even studied, by the proper adjustment of apparatus which is either modelled after that of the organism, or borrows part of its structure from the tissues of the dead body. The subjects of respiration, circulation, and other functions, will be found to receive many illustrations of great value from researches of this kind. In other cases, the body of the living animal is made the subject of experiment, which, sometimes implying neither pain nor danger, amounts in other physiological inquiries to the infliction of agony and death in a manner which naturally makes one reluctant to employ it. Such experiments, indeed, it will be our object to collate and consider rather than to repeat or imitate; the more so, that the results they afford are often rendered equivocal or invalid by the circumstances which attend their infliction—by the agony, for instance, which deadens the sensibility of the unhappy creature to a degree such as suppresses all ordinary manifestations of feeling ; or, conversely, provokes a series of movements, or of inflammatory and other changes, which mask the phenomena that would otherwise naturally ensue.

The evidence derivable from these four sources of course consists, in itself, chiefly of isolated observations, which can have little value unless the facts they include support some deductions or inferences. And these again, however naturally they seem to flow from such observations, we have to test rigidly by their mutual harmony and concurrence. If, to recur to our illustration, anatomy traced a given nerve to a muscle, while comparative anatomy alleged it to vary in development according to the development of a mucous membrane, and disease and experiment gave equally contrary phenomena as the results of its lesion, we should have to remain in doubt respecting its function.

Now, it is the peculiar difficulty of physiology, that it not only permits more confusion of thought than most other natural sciences as to what is observation and what inference—what fact, and what deduction from fact—two divisions of every subject which it should always be our endeavor to keep as distinct as possible from each other; but especially that there is a singular difficulty in comparing its facts and observations with each other. In the simplest experiment on animal tissues there is so much diversity intrinsic to the different specimens of such tissues themselves, and so much more which is extrinsic or pertaining to the circumstances of such experiments, that a complete parallelism of observations is often impossible, save in the very largest and broadest facts; and even these not unfrequently diverge to an almost contradictory extent.

Such considerations, while they enhance the difficulty of our subject, and certainly go far to excuse the discrepancies its authorities often exhibit, especially suggest the use of a strict and accurate logic in the reasoning which alone can build up a system of physiology from the innumerable details now accumulated by the industry of many observers.

A system of physiology, however, is what I fear our science cannot as yet claim to be. Few, indeed, are the large and comprehensive theories it has at present to offer. But the conclusions which bind together, each its own limited number of important facts, are both numerous and invaluable. And I think you will find numberless deductions, which, though they may be severally of smaller or narrower import, nevertheless do collectively explain and illustrate a vast amount of detail.

And of this mode of approaching the subject I can only say, that while its further development and extension seems to be the great want of modern physiology, it is especially your duty to adopt it. Only around such deductions and inferences can important facts be made to cluster in the majority of minds. Indeed, unless a superstructure of reasoning be founded on them, many of the details of physiology neither dserve nor permit recollection. And while it would ill become any man to forego, in such a lofty subject, the higher faculty of reason, and remain satisfied with a mere burden on the memory, least of all would it be wise for a student of medicine to do so. The study of causation in physiology will well prepare you for the study of diagnosis in practice; and the difficulties of the lecture-room, properly encountered, will train you for the graver responsibilities of the bed side.

One part of our subject deserves a more specific allusion, both from its own inherent importance, and from the system adopted here with reference to its study—a system, I venture to think, in strict consonance with the foregoing remarks. I allude to microscopic anatomy.

So great is the mass of details accumulated of late years on this subject, that its full consideration would alone occupy twice the time placed at our disposal by the examining bodies for the whole physiological course. But valuable as much of it is, there is much more with which it is neither necessary nor expedient that you should attempt to burden your memory. And even as regards its more leading and important facts, it is quite essential that they should suggest, rather than replace, that exercise of the reasoning or deductive process which can alone fructify dry details into true and useful knowledge.

In place, therefore, of descriptions of wearisome minuteness, of measurements which specify diameters to the thousandth of a line, and shades of granulation of bewildering closeness of resemblance, I should advise you to limit your attention to the cursory descriptions, and simpler standards of comparison, adopted in the following lectures. All beyond this had better be matter of sight than of hearing, much less of reading. "*Segnius irritant animos demissa per aures, quam quæ oculis subjecta fidelibus;*" which proverb is, indeed, literally illustrated in this institution, as regards microscopic anatomy, by the admirable demonstrations of my colleague, Mr. Rainey, one hour of whose practical teachings you will find, believe me, of more value in this respect than any number of books or lectures.

I have said so much of the advantages incidental to the study of physiology, that it might naturally be expected I should conclude with a word of warning as to the dangers which, like most other fruits of the tree of knowledge, it might be supposed at least exceptionally to imply. Popularly, indeed, its study is supposed to be beset with peculiar perils, amongst which materialism, infidelity, and a variety of other moral lesions, are more or less charitably enumerated by those who are certainly themselves above (or below) all suspicion of the physiological knowledge they distrust and depreciate. In those curious psychological studies, religious novels, there generally figures an exceedingly clever person—often a medical student—who is profoundly versed in physiology and its kindred sciences, but who, alas! questions the infallibility of the clergyman of the parish on these matters; and gradually going on from doubts of an exegetic kind to downright infidelity, ends by coming to exemplary grief in the last or penultimate chapter.

It is, perhaps, but fair to conclude that the authors of these singular books have somewhere or other met with characters answering, in however distant a degree, to this stock description. It can hardly be envy which leads them to disparage, as a kind of "bloated aristocrat" of the intellectual world, the whole class of scientific men. We ought, indeed, to assume that there is a nucleus of fact in their statements; a feature or two, however distorted, in this wonderful caricature of humanity, which they delight to paint over with anticipatory flames, like the Holy Brotherhood of the Inquisition used to do with their victims.

True or false, however, the description no way affects this great proposition: that, in all ages of the world, the cultivation of natural science in general, and of this branch of it in particular, has been found in conjunction with a devout worship of the Great First Cause of all the elaborate structures of animal and vegetable life. To the names of Galen, Solomon, and Haller, which first rise in one's mind as illustrations of this rule, numbers of others might be added by a minute's reflection. But three so diverse in age, and race, and mode of study, may assuredly suffice to refute a calumny so threadbare as that of the wholesale perversion of scientific men. And I hope it is not irreverent to ask, whether a heavy responsibility would not attach to any one, whether layman or priest, who should teach that He, who is the light of the world, lighting every man that cometh therein—He who, when He spake among men, rarely did so without using analogies which showed that the material world was regarded by Him as a fit object for our contemplation, capable of suggesting and enforcing the highest and holiest thoughts—has enjoined us to waste his precious gift, the light of reason; and to leave in darkness and obscurity, or to use only for the poorest and most fleeting of comforts and pleasures, the things which He has given us richly to enjoy? If the charge of impiety is to be flung recklessly about, may it not be retorted by asking, "Is there no unbelief, no atheism in the theory, that a man can only defend his creed by rushing at every doubt, like a bull, with lowered head and shut eyes?"

So little of the truth, indeed, is there in the notion that the study of physiology favors scepticism in religious matters, that the contrary statement might be maintained with considerable more semblance of accuracy. A subject which continually reminds us of our ignorance should scarcely make us vain; or which perpetually tells of what nevertheless we cannot observe with any of our senses, to doubt of the existence of a realm which at present lies altogether beyond their inquiry. Nay, more, if it were desired to minister to a mind diseased in this its most important part, it would be difficult to specify any better intellectual discipline than the study of life and organization. If the sight of the stars in the sky could seem to the mind of the great Napoleon a scornful but complete answer to the sceptics who reasoned around him in his voyage to Egypt; and if he, in unconscious imitation, could draw from this spectacle the same lesson which David had done thousands of years before; surely the transcendent mystery which a drop of standing water reveals to modern observation—the throng of shapes, structures, instincts, and habits, which jostle each other in this microcosm—amount to no meaner teachings, and afford no less certain proof of a Creator. The honest doubter, I should rather say, may find in physiology what, so far as his doubts are really intellectual, and not moral, must tend to shake and remove them. And any exception to this rule would almost justify the suspicion that his study of the subject was of that superficial and scanty character which, though it may, in the technical phrase of student life, grind men for the college or hall, will most assuredly fit them for nothing useful in this world or the next.

The charge of materialism is more difficult to deal with, mainly because of the sophistical sense in which the word has been used, and the odium it has therefore come to convey. To parody the sturdy Welshman's answer to the anti-Germanizing clergyman who casually held forth in his parish, "Here, sir, the great danger is of 'immaterialism.'" The only decently scientific hypotheses, in other words, which represent the material and its antagonistic theory, are both of them, so far as I dare venture to judge, as perfectly compatible with religion as are the Books of Euclid. Indeed, I question whether they are not quite compatible with each other—whether the difference be not in great degree one of terms or words, rather than of ideas. One side, for example—well represented by one of the most able physiologists of the day, Dr. Carpenter—is inclined to assume the existence of a force or forces, so unlike anything we meet with in the inorganic creation—that is, so characteristic of life—as to be fitly named *vital*. These forces ceasing at death, allow the substances they previously tenanted and governed to fall back, as it were, into the domain of the ordinary laws of matter, in obedience to which they now decay and disperse into the world around them. The other side, which I will instance by the illustrious Valentin, regard life and organization as sustained in a great measure by the same laws as those which, in different degrees and modes of working, operate in the inorganic world. Declining to separate the physical and chemical phenomena of dead and living nature by a line of demarcation hitherto not definitely proved to exist, and confidently resting on the innumerable and undoubted facts which prove that such forces as heat, light, magnetism, chemical affinity, are every moment operating in the living body, it supposes that even the most peculiar and fleeting of these operations, which we sum up as life, are effected, in obedience to natural laws, by the use of forces everywhere present.

Of the theologian who should call this "materialism," I would ask, "How does it affect revealed religion, or infringe our common creed?" Its supporters, in assuming that "the vital functions are the result of an infinitely wise plan of organization," do but modify, and indeed modify by exalting, our notions of the infinite wisdom they explicitly acknowledge. The materials, so to speak, they regard as fewer, simpler, more general, less heterogeneous, than had hitherto been imagined. Scientifically, they must only gain their position more fully by proving it more fully than they have yet done. But, theologically, if there be any difference, surely it is that the simpler the materials, the more unimaginable must be the skill and wisdom of the workmanship.

To balance between the two theories on phsiological grounds is, perhaps, less easy and conclusive. A critical intellect can, indeed, generally find something about these hypotheses more or less constrained and inexact. They never quite fit the limbs of a growing science; and, to keep up this homely simile, physiology, after limping uneasily about in them for a short time, soon treads them down at heel. The vitalist, for example, cannot question the share taken by inorganic forces in the ordinary functions; or the contrast between systemic and somatic death; between the death, for example, of the whole animal, and that death of its muscles which only comes on several hours after, and can be deferred or even removed by the injection of blood. The supporters of the opposite view on the other hand, must be compelled to admit that we are still possibly ignorant of some of the forces which must essentially minister to life; and that of these unknown forces, it is not impossible some may be more or less limited to organized or living matter. Each theory is thus more attractive according as you choose to fasten your attention on the differences, or on the likenesses, of the forces concerned in the living and lifeless divisions of nature. Each, however, is only provisional; and if the latter may be regarded as any way preferable, it is only because it seems to be perhaps the more accurate and useful, precisely where it is the more modest, of the two; because it implies fewer consolations or excuses for our ignorance, and holds out larger incentives to our industry.—*Lancet.*

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EDITORIAL AND MISCELLANEOUS.

THE CLOSE OF VOLUME VII.

A VALEDICTORY.

With this number we close Volume VII of the *New Orleans Medical News and Hospital Gazette.* During five long years the writer of this has performed the monthly, aye, the daily task of catering to the tastes and appetites of hundreds of medical men scattered over our Southern States; and this task has been performed with a willingness which only now seems to us surprising, as we are about to resign to other hands all that we have so long labored to perfect and make useful. The editorial pen slipped into our hand by some unseen influence. We did not seek it: it rather sought us. We did not shun it, because our nature is to stand fully up to the indicated fulfillment of our mission, be it what it may. We look on the moving world around us, and we religiously believe that in all the ramifications of society, man is utterly dependent on his fellow man. We cannot be selfish, and be kindly tolerated by men. We must labor for the common good—some more, some less, according to capacity and circumstances—and our real remuneration, when we lie down to take our last long sleep, is self-approval.

In the management of this journal, during the time indicated, we have nearly always been the responsible agent, as far as responsibility can attach to an editor. We have never uttered a word at the point of our pen that has not been sent forth laden with best wishes for the general good. We have never used our pages for personal purposes, unless our labor for all should redound to our poor advantage. We have praised when praise seemed due, and we have condemned when the just reward was condemnation. For both purposes we have used ever the same pen, the same ink, and the same vocabulary, never doubting the judgment of our honest peers, and fearing the hue and cry of no man or set of men. And now that we come to yield our seat to another, we have our own approval to the full extent of quietude of conscience.

A word as to the substantial realities of editorial life. We have adverted to the unceasing labor of our position. That is a self-evident proposition: no argument is required to force it on the mind of even him who is unwilling to believe. Have we been rewarded?

Many subscribers have we on our list whose real pleasure has ever been to yield promptly the material aid which was our due. They know we thank them—aye, that we honor them; for they have shown that they are conscientious men. Others there are, who, after long delay, have cancelled their obligations by balancing their accounts on our ledger. They have caused us much anxiety and trouble, but we forgive them, believing that our successor will fair better under the promptings of their aching consciences. Another class mars the fair proportions of our ledger, and robs our sanctum of the perfume of the few flowers which would bloom therein. We speak of those (and their name is *hundreds*) who, by all sorts of fair promises, or by gross misrepresentations, annually extort from the honest laborer, the fruit of his toil, without ever dreaming of remuneration, first or last. These are the men who teach themselves to believe that all men were born to work for them, the pay being ample in their empty *patronage!* But for these, the editorial path would have been smooth indeed. We owe them no thanks, but we wish them no harm. Perhaps these few words may arouse the smothered spirit which a just God has placed in all men, and in victimizing us they may at last have learned the lesson of real happiness—justice to all men. On account of this black list, we have labored five long years without one cent of reward, and now to our ledger there is, independent of all advance payments for the coming volume, an indebtedness of over $5,000!! Were this money paid over to us, he who has labored unceasingly for his professional brethren, and for the noblest of professions, would only have what is due him. In the pockets of those who owe it to us, it is scattered in small sums amongst those who have no earthly right to it, and to look at it must depreciate each one in his own estimation. We would rather be without the aggregate in our pocket than one of them with even all of the small sums they hold so unjustly.

But we have had our editorial pleasures, and shall, doubtless, under the force of habit, for some time feel at a loss. We give up the position, however, on account of the press of other engagements which will not bear neglect, and we shall be constantly employed. We shall not throw away our pen altogether, but will occasionally contribute to the original department, while another and an abler hand conducts the pages we now abandon. For the new Editor, Dr. ANTHONY A. PENISTON, our colleague in the New Orleans School of Medicine, we bespeak a hearty patronage, for he will amply merit it. The best wish we can make him, and the patrons of the Journal, is that he will not at the end of five years' labor have to make the unpleasant exposé which has just been forced on us. If he would avoid the bitterest disappointment in relation to the list of mushrooms who silently suck away all the life blood of a medical journal, he must do as we have done—pluck from Pope's partere this little flower, and wear it in his bosom—

> "Hope springs eternal in the human breast;
> Man never *is*, but always *to be* blest."

D. W. B.

ALL ABOUT PESSARIES.—We have been much amused lately with a discussion on the use of pessaries, which has been held at the New York Academy of Medicine. The questions before the Academy were : 1st. Are such appliances ever necessary ? 2d. In what cases are they called for ? 3d. What are the best instruments for such purposes ?

Dr. Peaslee opened the discussion by a radical defence of pessaries—intra-vaginal and intra-uterine. In a few words, Dr. J. Marion Sims supported Dr. Peaslee, handsomely slipping in the most valuable observation of the whole discussion—that the profession "did not seem rightly to appreciate the fact that each case (of uterine displacement) should be a study by itself."

Next comes Dr. A. K. Gardner, and before his battery pessaries fall like raw recruits before a shower of grape shot. He disapproves, "*in toto*," of vaginal pessaries, and he wonders that anybody uses intra-uterine pessaries. He condemns pessaries as radically as Dr. Peaslee advocates them. Dr. Peaslee gives a short rejoinder, and Dr. Sims then cites cases to prove the value of pessaries. He also, in some measure, supports Dr. Gardner's ideas of the utility of the abdominal supporter. Dr. T. G. Thomas then undertook the defence of pessaries, citing cases highly illustrative of their value, and wound up by asking Dr. Gardner how he treated similar cases. To which polite question the Doctor replied, by asserting that Dr. Thomas's cases were *complicated* ones. Whereupon, Dr. Sims very appropriately remarked, that he never saw any but complicated cases.

What a pity it is that men will be so utterly radical, either in defence or condemnation of remedial agents. We have no doubt at all that Dr. Peaslee relies too much on pessaries, and that Dr. Gardner deprives himself and his patients of a most valuable remedial agent to gratify theoretical antipathies. Just as surely as we live, pessaries are potent for good and for harm, just as are opium, calomel, etc., etc. There are cases wherein they can be used, and cases wherein they cannot ; and there are times when they can and cannot be used. There are also pessaries of proper and improper shapes, and a pessary of given dimensions will not fit every patient demanding the use of the instrument, any more than a given pair of shoes will suit all persons requiring shoes. Again, pessaries are made of good and bad materials ; and, indeed, what may be good material for one woman shall not prove good for another. We have seen one woman wearing a silver pessary without corrosion of the same, and the next woman could not wear the same instrument without corrosion, even unto absolute destruction. But on this point we have brought ourself and our patients down to a line of practice which gives results more satisfactory than any we ever hoped to attain. A pessary, if eighteen carat gold, will not corrode in any woman's body, and we find that nearly every honest aud industrious woman can find the means of procuring one. Even for negro women, we find masters and mistresses daily more willing to do the very best that can be done. When gold is really required, it is generally cheerfully paid for. With gutta percha, india rubber, etc., we have no longer anything to do.

IMPORTANT SURGICAL OPERATION.—Prof. Choppin, of this city, has recently extirpated the uterus with entire success. The case was one of irremediable procidentia and the instrument the ecraseur. The vesico-vagina wall was carefully dissected, so as to allow the ecraseur to pass entirely behind the fundus of the uterus. After the removal was accomplished, the edges of the wound were kept in apposition by means of leaden clamps and silver sutures. The patient is a negro woman, about thirty-five years of age. We saw her on the third day after the operation, she had not a single unpleasant symptom, and through the speculum the seat of the operation looked well. It is now ten days since the operation, and she is reported to be "up, making a cup of coffee this morning." The extirpation involved one ovary and fallopian tube entire, and a small portion of the other tube, leaving the ovary intact.

From our exchanges we learn that Prof. Barker has recently performed cæsarian section, saving a child twelve pounds weight, but failing to save the mother.

Health and Weather of New Orleans.—During this month of January, 1861, we have been receiving the quantum of rain so long withheld; we have been deluged; and now (Jan. 25th) we are undergoing the infliction of a continuous cold shower. Nevertheless, the health of the city has been all the time good, the weekly mortality generally ranging about 120. All the doctors are complaining of the healthy condition of things. The fact is, our people cannot afford to be sick, as each man will soon be required for the battlefield, and each woman must busy herself in preparation of her husband and sons, or sweetheart, as the case may be. Even the little ones are busy rubbing rust from papa's sword or gun. Should the Republicans conclude not to eat us up alive, no doubt the revulsion will produce an epidemic.

Prospectus of an Obstetric Annual.—The undersigned proposes to issue on the first day of January of each year a volume of 400 to 600 pages, devoted exclusively to obstetrics and the diseases of women.

It will consist of a liberal exposé of everything new in relation to these important branches of medicine, as no pains or expense will be spared to extend inquiries into every field.

Subscription price—*payable invariably in advance*—four dollars per annum, or fifteen dollars for four subscribers. The work will be commenced on the cash principle only, and the patronage of the real friends of medical literature is respectfully solicited. Early remittances are asked, in order that it may be ascertained whether the expense of the undertaking will be met. Patrons may rely on it, that with each year improvements as to size, etc., will be instituted to the fullest extent warranted, as the object is not to erect a money-making machine, but to exalt and improve a most neglected branch of medicine.

All editors of medical journals are respectfully solicited to exchange from this date, in order that all proper facilities may be thrown in my way.

All exchanges, subscriptions, and communications of every kind, to be directed to

D. Warren Brickell, M. D.
Box 346, Post Office,
New Orleans.

N. B.—All editors of medical journals are solicited to insert the foregoing.

To Our Subscribers.—Elsewhere is to be found our valedictory. We close this seventh volume of the *New Orleans Medical News and Hospital Gazette* and our *monthly* editorial life is ended. In placing the journal into other hands, we have pecuniary arrangements to make which involve large amounts. *We therefore make one more earnest, one last appeal.*

In every number now issued our subscribers will find their bills, made out to March 1st, 1862—thus including advance pay for the forthcoming volume. We are entitled to all moneys received during March, 1861. Shall we not, in retiring, at least, be favored with a hearty response to our just demand? We know we have been a faithful servant. Shall we not be at least partially rewarded?

EXCERPTA.

PROCEEDINGS OF THE EDINBURGH OBSTETRICAL SOCIETY.—SESSION XIX, MEETING I.—*November* 23, 1859.—Dr. MOIR, President, in the Chair.—1. *Amputation of the Cervix Uteri for Cancroid Degeneration.*—In the absence of Professor Simpson, Dr. Alexander R. Simpson laid before the Society preparations of the cervix uteri of two patients, who were the subjects of cancroid disease of that organ. The two preparations showed remarkably well the different forms which the same disease may assume in different instances; for, while in one of them, the smaller, the morbid change consisted simply in the development of masses of heterologous cells, having the character of scaly epithelial cells, in the interstices of the ordinary tissues of the part—in the other and larger preparation, there was a further morbid change superadded, consisting in the development of an enormous number of villous papillary projections, growing on the surface of the part, and dividing and subdividing, till the whole assumed a marked dendritic appearance. The one cervix, in short, presented an example of the ordinary cancroid growth so frequently met with in other parts of the body; while the other was an equally characteristic example of the form which the disease is particularly liable to take on this organ, and which was familiar to all as the true cauliflower excrescence of the uterus. In both cases the amputation of the cervix had been effected by means of the ecraseur of M. Chassaignac. In the case of the patient from whom the smaller variety of tumor had been removed, and who was operated on about two months ago, the straightshaped instrument had been employed. The use of this form of instrument rendered it necessary to pull down the whole uterus, by means of strong hooked forceps or vulsella, so as to bring the vaginal portion outside the vulva; and such a forcible and extensive displacement of the organ must, doubtless, prove a source of danger to patients thus operated upon. To avoid all risk from this source, on the occasion of the performance of the second operation, a fortnight ago, Professor Simpson had made use of the ecraseur which was curved near the point, and which admitted of the application of the chain, without any dragging down or exposure of the uterus at all. The aid of a number of assistants could be dispensed with when the operation was performed by means of such a curved instrument; for the whole process then consisted, 1st, of inserting into the cervix uteri a strong vulsellum, by means of which the only assistant whose presence was necessary might keep the organ steadily fixed, while the chain was being carefully applied and adjusted at a safe distance above the line of diseased and altered tissue; and, 2dly, of then slowly working the instrument until the parts it embraced were all sawn through. The patient lay in a perfectly unconstrained position, on her back, during the performance of the operation, and it was possible to complete the whole operation without exposing her person in any degree. In fact, in operating with a curved instrument, everything was done by touch alone, while, in using the straight one, we had to call in the aid of sight as well. No accident of a grave character had occurred in immediate connection with the operation in either of these two cases. In the woman from whom the cauliflower excrescence had been removed, the amputation had been too rapidly performed, and an oozing of blood had taken place for two days subsequently, not to such a degree as to amount to flooding, or to give rise to the slightest alarm, but pretty nearly as much as we sometimes see in women for a day or two after their confinement. Afterwards she had a slight attack of phlegmasia dolens in the right leg, but from that she was now recovering. The other patient was threatened with an attack of pelvic cellulitis, and remained for some time in an anxious condition, but ultimately she got perfectly well. Amputation of the cervix uteri by means of the ecraseur was not always, however, so successful as it has proved to be in these two cases. When in Berlin, two years ago, he (Dr. Alexander R. Simpson) had heard mention made in the Obstetrical Society there, of a case where the operation had proved fatal in that city in the hands of Professor Langenbeck, one of the most skillful surgeons in Europe. The loop of the chain had been applied high up, and during the working of the instrument, a portion of the vault of the vagina had been dragged in, and the consequence was, that the peritoneum was opened into, and the patient speedily died.

Dr. George Keith stated that he had under his care at present a patient who was the subject of cancroid disease of the cervix uteri. It had assumed the form of the cauliflower excrescence, and had given rise to frequent and severe hemorrhages, which had greatly reduced the patient's strength. The disease had invaded the organ to too great an extent to admit of its complete eradication, but he had removed the most projecting soft part of the cancroid mass by means of the ecraseur, with this good result, that for some months the patient had been free from hemorrhage, and had recovered in a great degree her health and strength.

THE LOCAL TREATMENT OF DIPHTHERIA.—The *Union Medicale* has recently published two letters from M. M. Loiseau and Trousseau, on the use of tannin and alum locally in the treatment of pharyngo-laryngeal diphtheria.

M. Loiseau, considering the false membranes, in all cases, to be but consequences of diphtheria, and, with the exception of croup, rather useful than injurious, provided their putrefaction be prevented, again lays stress upon the beneficial action of styptics, and especially tannin ; these seem to convert the morbid secretions into an imputrescible epidermis, which affords protection to the denuded surfaces and promotes their cicatrization. M. Loiseau performs insufflation of alum five or six times a day, and of pure tannin, equally often ; he states that a cure may thus be effected in three or four days, on the same principle which M. Trousseau adopted in his practice in 1828. A quotation from an article published on the same subject in 1833, by M. Trousseau in the *Dictionnaire Medical*, has elicited from the learned Professor a reply which we reproduce, as it explains the changes his views have undergone on the efficacy of the medical treatment of diphtheria, and more especially of croup.

"It is perfectly true," says M. Trousseau, at the date of September 20th, "that in the epidemics of diphtheria, which from 1818 to 1828 prevailed in the departments of Indre-et-Loire, Loir-et-Cher, and Loiret, the disease of the fauces readily yielded to frequent insufflation of alum, and to cauterization with muriatic acid or nitrate of silver. It is equally true that, when the complaint was met in its early stages, four or five days were sufficient to effect a cure, excepting, of course, when diphtheria had invaded the larynx

"For ten years past, however, diphtheria has acquired in Paris and in the provinces a degree of gravity and of malignancy which it did not, by any means, possess thirty years ago ; and I declare that it is now a long time since I have had the good fortune to see genuine pharyngeal diphtheria yield to treatment in four or five days. Common pseudo-membranous angina, or herpes of the fauces may be cured in twenty-four or forty-eight hours, but not real diphtheria, such as we too frequently meet with.

"I resort to the same means as M. Loiseau, and perform insufflation into the throat every two hours, and even every hour, if necessary, alternating the use of equal parts of sugar and alum or tannin. From time to time, I brush rather roughly the uvula and tonsils, before resorting to insufflation, in order that the medicinal agents may come into immediate contact with the mucous surface, and I consider myself very fortunate when, after ten days treatment, all trace of false membranes has disappeared.

"In five adults, whom, within the last few months, I attended with my friends Drs. Bernard, Patouillet and Blondeau, the disease lasted nine days in one case, and more than a fortnight in the others, and I repeat that it would have been utterly impossible to use with more persevering energy the remedies extolled by M. Loiseau, which I consider most useful, namely: alum and tannin.

"Appealing to the testimony of my learned colleagues of the Hospital for Infancy, M. M. Blache, Bouvier, Roger, Sèe, and of Dr. Barthez, I find their statements are perfectly similar to mine, and that they agree with me in thinking that the singularly rapid, extraordinary and numerous cures effected by M. Loiseau may perhaps be accounted for by his not having allowed himself sufficient time to establish an incontrovertible diagnosis.

"It is difficult at first, and especially in children, to distinguish genuine diphtheria from pharyngeal herpes ; and although in doubt I, prescribe the local application of alum and tannin, I do not flatter myself that I have effected a cure of tonsillary diphtheria when, after twenty-four hours, I cease to detect in the throat any pellicular concretions."

We are happy to be confirmed by so competent an authority, in the remarks we have offered above on the importance of diagnosis in the appreciation of the various remedies recommended for a disease the gravity of which, far from subsiding, seems rather on the increase, especially when observed in an epidemic form.—*Maryland and Virginia Medical Journal.*

SHAKERS' TINCTURE VERATRUM VIRIDE.—Several months ago we received specimens of the tincture of veratrum viride, prepared by the Shaker Society, at Union Village, near Lebanon, Ohio. It was represented to be a saturated tincture, and fully equivalent to Norwood's tincture in its efficacy. We have delayed from month to month to take any notice of this preparation, until we might be able to speak of its merits with the certainty of personal experience. This we are now able to do, and from our observation of its power, we can report that in the same doses with Norwood's tincture, the same effects have been promptly produced. A number of our professional friends are using the Shaker tincture, and find it entirely satisfactory. We are very glad to find this article so reliable, for we have always prescribed Norwood's tincture with a degree of mental reservation, feeling that there was an objectionable feature of quackery connected with it, that we could never entirely forget; besides, the difference, on the score of economy, in favor of the Shaker preparation is quite an item of importance, especially to the country practitioner.—*Cin. Lancet and Observer.*

TREATMENT OF CHOREA.—Dr. Stone, medical registrar of St. Thomas Hospital, has based the following conclusions upon fifty cases of chorea there treated during the year 1858: Of sixteen cases treated with sulphate of zinc, thirteen went out cured, three relieved; but two of the latter were in a fair way of recovery, which may be set to the credit of the medicament. On the other hand, three of those ultimately cured owed their improvement partly to ferruginous preparations. In one case the zinc had no effect whatever. The longest stay in the hospital among these sixteen cases, was 123 days; shortest, 14; the average, 44.6 days.

Fourteen cases were treated during the same period with preparations of iron; all were cured. Longest time, 161 days; shortest, 6; average, 44.2 days.

Liquor potassæ arsenitis was employed in twenty cases; eighteen cured, one relieved, one died. Longest stay, 55 days; shortest, 6; average, 26.3 days.

It remains a question whether the discrepancy between these results and those of some previous well-conducted observations is due to mere accident, or to some real difference in type between cases originating at different times and under dissimilar circumstances.—*Med. Times and Gazette.*

TREATMENT OF UTERINE HEMORRHAGE.—Dr. Cl. Ollivier thinks (*Gaz. des Hôp.*, 12, 1859; *Schmidt's Jahrb.*, 102. 5, 1859), plugging of the vagina not a very rational way of treating uterine hemorrhage; the efficient cause ought to be removed. The hemorrhage is either of a passive or active character—the former being puerperal, scorbutic or connected with polypi; the other resulting from inflammation, ulcers or fungosities.

Puerperal hemorrhage appears from placenta prævia, from debility of the uterine walls and coagulated blood in the cavity after delivery; from the placenta remaining in the uterus, or from the fœtus remaining there during abortus. Removing the cause constitutes the only proper treatment; any excessive flooding may be with certainty controlled, by injection of ferrum muriaticum oxydatum, The same treatment will subdue other passive uterine hemorrhage; plugs would, if polypi should be present, cause metritis and even pyæmia.

Where the hemorrhage is caused by metritis, it always admits therapeutical treatment, and to avert any *periculum in mora*, cold injections and the muriate of iron are preferable to plugging.

Ulcerations and fungosities call for the production of powerful uterine contractions. Ergotin is an excellent medicine for that purpose.

Vaginitis may also be treated with injections containing muriated iron, these being less painful than cauterization, and more efficient than plugging. In very acute cases, amylon can be used for plugging, preceding the injections.—*Cincinnati Lancet and Observer.*

THE SMITHSONIAN INSTITUTION.—The total amount of the bequest, as received into the treasury, was $515,169;

interest on the same to July, 1846, devoted to the erection of the building, $242,129. In addition to these, $135,000 of unexpended income has been invested in State bonds, so that the present income of the Institution is $38,325 14. The principal expenditures are for salaries, about $9,000; for publications of all kinds, $9,000; for meteorological observations, $2,500; for lecturers, $1,000; for the library, $3,500; for museum, $2,000. There are some incidental matters involving expenditure, and about $5,000 is set apart from the income to make a certain financial change for the sake of economy. The collections of various kinds which had accumulated at Washington have now been concentrated at the Institution, Congress agreeing to make an appropriation of $4,000 annually to keep them up. They are such as the collection of the Exploring Expedition under Capt. Wilkes, in South America and the South Seas; that of Lieutenant Herndon's Exploration of the Amazon; Captain Stanbury's Exploration of the Great Salt Lake; Captain Perry's Japan collections, etc., etc. This museum is stated to be now superior to any other in this country as a general collection, though in the specialities of exotic birds, shells, fossils, and minerals, it is said to be surpassed by the Philadelphia Academy of Natural Sciences. We are glad to see that the secretary who has charge of this department, looks forward to the object of "having a public museum, illustrating as fully as possible the natural history of the world, and taking rank with those of London, Paris, Berlin and Vienna.—*Washington Star.—Nashville Journal of Medicine.*

THERAPEUTICAL USES OF DIGITALIS.—In an able paper on this subject, published in the *Gazette Hebdomadaire*, by Dr. Germain, that gentleman comes to the following conclusions :

1. That in spite of the opinion expressed by Sanders, which is in contradiction with all that has previously been observed, digitalis retards the frequency of the contractions of the heart.

2. That nothing demonstrates that it enfeebles the force of the contractions of the heart, while theory, physiological experience and his own observations, prove that one of its mediate effects in cases of contractions of the orifices of the heart is to augment them, and that, in consequence, there is no danger in giving it in cases where the energy of the heart seems diminished.

3. That the frequency of the contractions of the heart, in cases of obstruction of its orifices, prevent this organ from returning to a functional normal standard, and keep up the disturbance of the circulation; and digitalis having the property of diminishing the frequency of the contractions, it is not necessary to look for another mode of action to explain the amelioration which in these cases follows the administration of this article.

4. That we can find nothing in the writings of authors which proves that digitalis possesses diuretic properties ; and that this reputation, ascribed to it by Withering, seems to have been accepted without discussion by all who have followed him.

5. It is very true, that in organic affections of the heart, in which the use of digitalis produces an amelioration in the circulation, it is often followed by an abundant diuresis, but that the diuresis in this case is only a mediate effect, caused by a return of the circulation to a normal state.

6. That all authors are unanimous in ascribing to digitalis a powerful action upon the stomach ; that in small

doses it stimulates the appetite, but that in doses sufficient to act upon the heart, it produces anorexia, even nausea, and may become a cause of dangerous dyspepsia in a great number of cases.

The following final conclusions are readily deducted: digitalis possessing the property of diminishing the frequency of the contractions of the heart, should be employed in the affections of this organ, consisting in a contraction in one of its orifices.

It should be employed in these cases because the frequency of the pulse opposes itself to the return of the circulation to its normal function; but we should be careful in administering it in other affections, accompanied by palpitations, and for two reasons—one, because the relief which it may procure is insignificant; and the other, because while it does not act upon the original cause of the disease, it generally does only retard improvement, by producing derangement of the digestive functions.

Finally, we should be careful in administering it in cases of dropsy not caused by affections of the heart. Digitalis possesses no diuretic action, and its employment under this title is dangerous, because it may, in producing dyspepsia, become an obstacle to a permanent cure, or may advance the fatal nature of the malady.—*Phil. Med. and Surg. Reporter*.

[Translated from the Archiv. der Wissenschaftlichen Heilkunde, vol. iv., part 3.]

THE PATHOGENESIS OF CHLOROSIS.—It is known that fewer colored blood-corpuscles are found in chlorotic than in healthy blood; while in the latter, one cubic millimetre contains from four and a half to five millions, the number in the former falls as low as to two and a half millions in the same quantity. It is known, too, that the colored blood-corpuscles contain iron, and that chlorotic blood is therefore deficient in iron; and, further, that the deficiency of chlorotic blood in colored blood-corpuscles, and in iron, is the consequence of an impaired state of the formative functions (Anamorphosis), and not the result of increased waste (Katamorphosis); for the urine of chlorotic patients is poor in solid materials. Lastly, it is known that the small amount of iron which the healthy organism appropriates to itself from the most varied diet—as from flesh, milk, eggs, water, etc., fully suffices for the needs of the system; especially as in the healthy state the bile is the only secretion that contains iron, and yet the ferruginous contents of the bile are in great measure reäbsorbed from the alimentary canal. How, then, is the occurrence of chlorosis in a healthy girl to be explained? She receives still the same ferruginous articles of food; it cannot, then, depend upon a want of iron, or upon a withdrawal of iron from the system, for these conditions do not exist; and yet the girl, with a constant supply of the same amount of iron, becomes chlorotic, i. e., there is a failure in the formation of red blood-corpuscles. What is this owing to? The vitalist, who ascribes to the sanative power of nature a Promethus-like contrivance and action in the preservation and restoration of health, is compelled to have recourse to a supposed error or caprice in regard to the direction that this sanative power takes, in order to explain the occurrence of chlorosis. But I am glad that the time is past in which such phrases and terms are deemed satisfactory, and in which it was fancied that an already obscure subject was to be explained by something utterly unintelligible. Now, when we ask for a substantial reason as to why chlorosis should occur with a sufficient supply of iron, the theory hitherto held is at a loss for an answer. The theory, to be sure, contains the truth, but it does not contain the whole truth; a link is wanting in the account of the origin of the disease. The organism, in fact, lacks the power to apply the iron furnished it to the formation of a hematine. Upon what does this want of power depend? We find the answer to this question in a discovery of Lehmann. Physiological chemistry has, up to this time, made various excretions the objects of its researches, and especially the urine. Its results, therefore, at best, have been of interest only as means of diagnosis. But where it has more thoroughly investigated the changes of tissue, fruitful results are to be found for practice, for pathology, and for therapeutics. I may mention, for example, the value of that beautiful discovery of Halwachs and Kühne, that benzoic acid in its passage through the liver is converted into hippuric acid by the decomposition of the glycocholic acid. From this, Falck inferred, that benzoic acid must be almost a specific against the condition known as icterus: and experience has proved it to be so. In like manner, for the explanation of the origin of chlorosis, I will show the value of Lehmann's discovery, that hematine is a glucoside.

We know from Bernard that the liver is a sugar-secreting organ: and, we know, also, that in disease the secretions of the different glands vary in amount, appearing at one time excessively increased, and, at another, diminished, or even entirely suppressed. There is no conceivable reason why this should not be the case with the secretion of sugar in the liver; indeed, we know already that this secretion is increased in many forms of diabetes mellitus, and that in all febrile diseases it is entirely suspended. We will now suppose, for a moment, and the supposition does not stand at all in our way, that the sugar-secretion of the liver has for some time been diminished; what will be the first consequence of such diminution? Inasmuch as hematine requires sugar for its formation, (for, according to Lehmann's beautiful discovery, it is like salicin, phloridzin, tannin, etc., a combination of sugar or a glucoside), therefore, when there is a failure in the supply of liver-sugar, the formation of the coloring matter of the blood will not be accomplished, even when the amount of iron is sufficient, as before; and, consequently, the construction of colored blood-corpuscles will be stopped; or, in other words, the chlorotic condition will originate. The essential cause, then, of the occurrence of chlorosis is a deficiency or cessation of the secretion of liver-sugar; the fact that the supply of iron is not used in forming hematine, is only a consequence of the former circumstance, and is not the real cause of the disease.

If the supposition thus made be true, viz., that chlorosis depends upon a defective secretion of sugar by the liver—a supposition, the correctness of which has, we think, been proved analytically and synthetically—three inferences may be drawn from it:

1st. Chlorosis is to be cured by means of sugar, which supplies what is wanting through the failure of the liver.

2d. Chlorosis is to be treated by every means which can restore the sugar-making function of the liver to the normal condition.

3d. The large doses of the preparations of iron with which chlorosis is empirically treated, effect the cure, not, as is universally believed, by supplying the requisite iron to the body, but because these large doses operate by promoting and increasing the secretion of sugar in the liver.

I. If the deficiency of liver-sugar is to be supplied by the ingestion of sugar, it must be a sugar like that of the liver, i. e., grape and not cane-sugar. For though the healthy organism may be able to convert the cane-sugar into grape-sugar, yet the question is whether the impaired digestion of chlorotic patients is equal to the task. Does grape-sugar, then, cure chlorosis? In northern Schleswick, where I practiced medicine for twelve years, and, as I have been told, in many parts of Hanover, honey is a popular remedy for chlorosis; and I can attest its efficacy from my own experience. Even though the honey may contain a small portion of iron, yet this is not the curative agent, for other articles of diet which contain just as much iron, are entirely powerless. As honey, by long-continued use, in large doses, may produce flatulence, acidity, colicky pains and diarrhœa, it may be well to combine it with suitable correctives, as the bitters, carminatives, etc., and to take it fasting in the morning in the dose of a tablespoonful.

II. We are still entirely in the dark as to the means which increase or diminish the secretion of liver-sugar. There is here a wide field open for inquiry into the powers of remedial agents. But, little as we know with regard to this subject, we are yet acquainted with one agent which promotes the secretion of sugar, and we find it efficacious in the treatment of chlorosis; it is nothing else than cold water. It was shown, some years ago, by Dr. Petters, in the *Prager Vierteljahrschrift*, that the secretion of sugar in diabetes is increased by drinking cold water copiously; and the experience of every hydropathic institution proves that chlorosis may be cured by the same means.

Many physicians regard the free use of cold water as a means which acts only by powerfully increasing the waste of tissue; and, therefore, they give no credit to the assurances of hydropathic physicians, that chlorosis is cured by this means; for, according to their theoretic views, it must aggravate the disease.

In chemical processes, water at one time plays the part of an acid, at another that of a base; it has, also, a twofold action as a remedy. Acting in one way it greatly increases the waste of tissue (Katamorphosis); acting in another, it promotes its formation (Anamorphosis). Indeed, a glance at the development of the fœtus throws light on the action of water in the organism, and may remove some rusty prejudices. Schlossberger has shown that in the earliest condition of fœtal life, the blood is of all the parts poorest in water, while after birth it is richest. Since, then, the younger the fœtus is, its vegetable life is the more energetic, and the formation of tissue is more active than its waste, it is evident that this formation is increased in activity by a large amount of water.

III. Whether the last of these three inferences will be verified the future will show. What is chiefly needed in the inquiry is an accurate method of investigation, in order to measure exactly the variations observed in the secretions of liver-sugar after the employment of different agents. When such a method is found, then the question as to the effect of iron will be easily decided.

These remarks are not yet sufficient to prove beyond all doubt that a failure in the secretion of liver-sugar is the immediate cause of the disease; yet, I think I have shown the insufficiency of the prevailing opinions on the subject to explain the morbid process, and on the other hand the high probability of the new theory. The future may give sentence in the matter. Should every doubt be finally removed, it would then be shown that chlorosis and diabetes mellitus are, in their essential nature, diametrically opposite morbid processes; and experimental pathology might one day succeed in producing chlorosis artificially, as has been done in the case of diabetes, so that the means would thus be found for the radical cure of diabetes.—*Maryland and Virginia Medical Journal.*

ON THE USE OF CALOMEL IN THE REMOVAL OF INSECTS IN SORES.—*To the Editor of the Edinburgh Medical Journal:* COLOMBO, CEYLON, 16th October, 1860.—Sir: Having seen in the *Edinburgh Medical Journal*, for September, 1860, a very excellent paper, written by Dr. John Brown, surgeon, Bengal Medical Service, Article III, Notes on the Surgery of the Indian Campaign of 1857 and 1858, and in paragraph one, of the treatment of gunshot wounds, he mentions:

"Often, with all his care, in the suppurative stage of a gunshot wound, maggots will infest the sore; and these, in addition to causing great anxiety to the patient, frequently change the character of the wound, and cause great pain and constitutional disturbance. When such a complication occurs, the best treatment is, carefully to pick out the worms with a pair of forceps; to have the wound frequently washed, in such a manner that the water shall enter the wound in a stream, so as to remove as much of the pus and *debris* as possible; and to dress the wound with lint, soaked in turpentine, or in camphor water."

This is a slow and uncertain method of getting rid of these insects, when a little calomel strewed over the part, or blown into the wound from the end of a quill, will immediately rid the patient of them.

In the year 1840, during the epidemic yellow fever, a corporal of the Eighty-second Regiment, during his attack of fever, had a sac of them in front of the right ear, and every application, such as turpentine, tobacco juice, etc., failed to have any effect upon them. On leaving the hospital at Stony Hill, I met a very old European woman, who told me that calomel would empty the sac in a few minutes; I returned and tried it, and in less than ten minutes the sac was empty, and had no recurrence of them.

In 1848, after the battle of Boom Plaats, over the Orange river, at the Cape of Good Hope, two of the wounded officers, who were shot through the elbow joint—one a captain in the Cape Mounted Rifles, the other a lieutenant in the Ninety-first Regiment—had maggots; the calomel was blown into the wounds, and in less than ten minutes they were all crawling over the bed, and were swept away, and there was no return of them.

I have written this account, as I am not aware that the efficacy of calomel in this affection is generally known.

I am, sir, your obedient servant,

THOMAS ATKINSON, M. D.
Deputy Inspector-General of Hospitals.

MEDICAL JURISPRUDENCE—RAPE EFFECTED DURING INSENSIBILITY CAUSED BY MAGNETISM.—Margaret A——, 18 years of age, believing herself to be out of health, went to consult C——, exercising at Marseilles the profession of a therapeutic magnetizer. She visited him daily.

Four months and a half afterwards she discovered that she was pregnant, and complained to the authorities, who directed Dr. Coste, Director of the School of Medicine, and Dr. Brognier, Surgeon-in-Chief, "to determine the date of the pregnancy; and, in the second place, to reply to the question whether Margaret A—— might have been violated and rendered pregnant contrary to her will—that is to say, if her volition could have been completely or partially annihilated by magnetism.

The medical inspectors were satisfied that the pregnancy did not extend further back than four months and a half; and, founding their opinion upon the report made to the Academy of Medicine in 1831, by M. Husson, concluded, that as an individual, while in the magnetic sleep, is insensible to every kind of torture, it is rational to admit that sexual intercourse might take place with a young female without the participation of her will, and without her being conscious of the act, and, consequently, without her being able to resist the act consummated upon her.

The opinion of Drs. Coste and Brognier was confirmed by that of M. Devergie, of Paris.—*Gazette Médicale de Paris.*

CHLORODYNE. By Dr. *Edward Squibb*, of Brooklyn.—This most extraordinary humbug does not deserve a moment's serious consideration; and were it not for the circumstance that physicians occasionally resort to it by name, or by its being misrepresented, and without a due knowledge of its heterogeneous composition and quackish character, it could be little else than waste of time and space to allude to it. It claims English origin, or rather to have been *invented* in the English East India service; and in order to secure for it the magical power of mystery and large names, its composition was concealed, or indefinitely stated as a combination of perchloric acid and a new alkaloid. Then it was stated to have been *analyzed* by a Dr. Ogden; and the latter is represented as having given the formula by which it is prepared. As it never could have been either invented or analyzed, it is not improbable that its whole story and career are fictitious. It mainly consists of chloroform and muriate of morphia, but contains besides, perchloric acid, oil of peppermint, hydrocyanic acid, tincture of capsicum, molasses, and tincture of cannabis. Such a villanous mixture could never by any possibility have been *invented*, though it may have resulted from some uncommon degree of empirical ignorance and stupidity; and such a mixture, once made, would have defied the skill and knowledge of any analyist whatever, chemical or logical. And yet an analysis is said to have been made, and the proportions are given in drachms, drops, and grains. Then, of its properties. It is said to be twice as heavy as water, which, from its composition, is impossible. It is said to be sedative, diaphoretic, astringent, antispasmodic, diuretic, etc., and to improve the pulse in all imaginable respects, including that of *increasing* it by *decreasing* the frequency of the beats; and finally, the sum of its impossibilities accomplished, has the accustomed climax of such cases, namely, that it cures consumption in about the usual proportion of cases, namely eight out of twelve, and all of the usual undoubted diagnosis and gravity. That any mixture not absolutely antagonistic in its elements, containing two-thirds of its weight of chloroform, and eight grains of muriate of morphia, in nine drachms, beside hydrocyanic acid and Indian hemp, should be sedative in effect, is not surprising: and the molasses, capsicum, and peppermint are so many additional shot to be fired into the bushes; but the perchloric acid is a novelty. Hitherto regarded chiefly as a chemical curiosity, it now makes its appearance in the materia medica under circumstances most unfavorable for obtaining any definite character or classification. In the small quantity in which it enters the company of these powerful narcotics, its chance of effecting anything more than the peppermint and molasses, is remarkably small. The whole thing is, in effect, an absurd sarcasm upon the appetite for novelty and complexity, which appetite, in a portion of the medical profession, is industriously catered to by the crowd of nostrum—or rather money—makers, who are so easily found in the ranks of all sciences and professions.—*American Medical Times*, *Dec.* 8, 1860.

REPORT OF TWENTY-FOUR CASES OF TRACHEOTOMY PERFORMED IN THE LAST STAGE OF CROUP.—In this paper Dr. Fock gives an account of the cases of tracheotomy for croup which have occurred in his practice, and in that of his colleauges, at the Magdeburg Hospital. He observes that, notwithstanding some of the leading practitioners in Germany—such as Langenbeck, Baum, Roser, and Bardleben—resort to the operation, and recommend it in their lectures, it has obtained no general admission into German practice. Of these twenty-four cases, ten were successful, the particulars of both these and the unsuccessful cases being exhibited in a tabular form. To this statement Dr. Fock appends some observations.

1. These cases are decidedly in favor of the operation ; inasmuch as it was not resorted to until a stage of the disease when death seemed quite inevitable without it, notwithstanding the persevering employment of the various remedies. The saving ten out of twenty-four children, apparently absolutely condemned to die, cannot be

regarded as other than a great success. It is not desired to draw from these facts the conclusion that the operation should be resorted to in every desperate case of croup, although it is very difficult to indicate in which of such cases it should be abstained from. It would be a mistake to estimate the degree of danger alone from the amount of dyspnœa; for even when this becomes suffocative during the operation, success may yet be the result. As a general rule, it may be stated that the most favorable prognosis may be delivered in those cases which exhibit themselves from the first as pure croup, and are attended by constantly increasing paroxysms of dyspnœa; while the contrary is the case when there has been a preliminary bronchial catarrh during several days, and when the child, after seeming to be in a state without any peril, suddenly passes into a condition of actual croup. Either on account of the small quantity of air which enters through the contracted larynx, no bronchial *rale* is produced, or its existence is masked by the laryngeal sounds. The operation is resorted to, and the child in all probability dies with bronchitis and pulmonary œdema. When accompanying the croup, too, a widespread bronchitis is observable, the dyspnœa may be more dependant upon the latter than upon the obstruction of the larynx. Pulmonary œdema is probably already present, and death will take place within twenty-four hours after the operation. The difficulty in the performance of auscultation and percussion in these cases is sometimes immense, and may amount to an impossibility. In such instances we can only fall back on the history, and remember that cases of croup in which the disease has become developed with rapidity and violence are more favorable for the operation than those in which it has for some days been preceded by catarrh. In the latter cases the operation should be declined. Again, the prognosis has always been, within the author's experience, of a favorable character when the depressions below the larynx and at the epigastrium become very marked during inspiration. The exaggerated actions of the inspiratory muscles, especially the accessories, augment such depressions much when the lungs are entirely free, and the obstacle is only placed in the larynx; but the smaller amount of such depression is quite remarkable when there is coëxisting pneumonia, extensive bronchitis, or pulmonary œdema. In such cases the probabilities of success are too small to warrant our undertaking an operation. Lastly, the constitution should influence our prognosis. It is decidedly more favorable in thin, long-necked children, than in those of an opposite conformation. In determining whether we shall operate in a given case, we have to ascertain whether the after-treatment, as regards watchfulness, skilful nursing, etc., can be secured—matters which, however easily provided for in a large town, and in a hospital, may not be attainable in a country district; and yet upon them the result may entirely depend.

2. As to the operation itself, the reporter enters into the details and difficulties of its performance, which we need not repeat. He says he always resorts to chloroform, which renders the operation far more easy of performance; and he has never, even in extreme dyspnœa, found any ill effect to result from its employment. At first the dyspnœa is increased by the inhalation, but the narcosis is speedily established, and then the breathing becomes much calmer than before.—*Brit. and For. Med.-Chir. Rev., July,* 1860, *from Deutsche Klinik,* 1859.

Fancy and Fashion in Pharmacy.—*By Edward Parrish and William C. Bakes.*—The legitimate enterprise of our progressive age, heightened by the competition resulting from the over-crowding of educated pharmaceutists in large cities, continually exhibits itself in some new phase of practice, sometimes destined to be permanently incorporated into the arcana of the profession, but often too ephemeral to deserve more than a passing notice. As the dress and address of our remote ancestry will occasionally loom up amid the ever-changing fashions of modern society, so do we occasionally find the almost forgotten institutions of by-gone pharmacy frequently dressed in the popular guise of new remedies.

In the present essay, we propose to describe some rare preparations now called for in Philadelphia. Though they may seem to readers in other localities of too trivial importance to occupy a position in the *Journal*, we are sure they will not be without their use in this particular pharmaceutical center.

Coating Pills.—In the last century, the practice was not unfrequently resorted to of coating freshly made pills with silver or gold-leaf, and in some of the long established pharmaceutical stores in London, facilities are always at hand for finishing pills in this way, when in request. Some very particular people of the old school occasionally bring an ancient recipe, at the foot of which is written *deaurentur pilulæ*, meaning, let the pills be gilt, and might not be satisfied with a less splendid surface than that of the gilded pill.

With us, the demand has become quite frequent of late for silver and gold coated pills, several eminent practitioners prescribing this elegant finish, and we have acquired some experience from manipulation.

In rolling the pills, care is taken to use no dusting powder of any kind, and to have them moderately damp, otherwise we moisten them with a little syrup, and then introduce them into the hollow sphere along with the requisite quantity of silver or gold leaf; a rapid motion is now given to the globe, and in a few seconds the pills are removed, with a clear and bright coating. One dozen pills, of average size, require one sheet of foil, and large numbers in the same proportion. Some difficulty is experienced in giving a handsome coating to pills of Quevenne's Metallic Iron, on account of their black color; this can only be obviated by the use of a larger proportion of foil, which may be objectionable as interfering with their solubility, notwithstanding its extreme tenuity.

The taste of the pills is of course disguised in proportion to the completeness of the coating; in dispensing no powder is necessary, the tendency to adhere to each other being obviated.

Some of the old recipes direct to use a gallipot laid against the palm of the hand, for coating pills with the foil. We have found two porcelain capsules fitted to each other, the opening at the lips being covered by the thumb, to serve a very good purpose; but there is a decided saving in the use of an apparatus as above figured, any portion of the foil not adhering to one charge of pills will be ready for the next, besides the advantage which is gained by the leverage of the handle.

In what is here said, we have ventured no opinion upon the effect of this treatment upon the solubility and consequent activity of pills. We learn from a physician who has prescribed them, that the conclusion often hastily drawn against their eligibility is not borne out by experience. Another remark needs to be made; not only is the quality of the foil important, with reference to the luster of the coating, but Dutch metal, which is so often substituted for gold foil, is quite unsuitable, from containing copper and zinc.

For sugar-coating, our apparatus offers facilities over some other contrivances; the sugar being triturated with gum arabic into a dust-fine power, and introduced into the spheres, can be readily transferred to the moistened pills, but we believe there is no good way of giving the desirable surface to these "*dragees*" without the application of carefully regulated heat.

Dispensing.—The mode of dispensing pills has sometimes an importance which is overlooked by pharmaceutists. In England, the practice obtains among those who cater to the taste of the wealthy, of sending out pills in vials, which are regularly made and sold by the dealers in druggists' sundries, of the proper sizes for one, two, or three dozen pills; these have cork-stoppers capped with turned tops of satin or box-wood, and are certainly well adapted to the purpose, especially where pills are deliquescent, or have a special tendency to become dry and hard.

The construction of pill boxes has especially engaged our attention of late, from observing the rather unsightly, though otherwise superior description imported from Germany. Improving upon them in style, we have adopted the same mode of construction, and have produced a very superior pill box. Instead of the top and bottom piece being as in the common kind, cut out of such size as to fit into the cylinder, constituting the sides of the box, they are so large as to extend over its edge, on which they are secured by a margin of fancy paper covering the projecting edge.

Every pharmaceutist of experience must have noticed how often pill boxes are returned with the bottom or top, or both, loosened and sometimes lost, to the great annoyance of the purchaser, and requiring a new box with every renewal of the prescription; this is obviated by the use of the box now described. A flat shape is not without advantage, being convenient for the waistcoat pocket, and allowing ample space on the top for labelling, which the somewhat lengthy directions occasionally required.

Jellies.—Jellies made of fixed oils, have the advantage of diminishing the adhesion of these to the mouth, which is the most disagreeable property of this class of remedies. Cod-liver and castor oil jellies, as patented by Queru, of New York, enjoy a large sale, and are much prescribed by physicians; without interfering with this patent, the physician may prescribe jellies of any of the fixed oils or of copaiva, by a recipe somewhat like the following: Take of the fixed oil, an ounce; honey, syrup, of each, half a fluid ounce; powdered gum arabic, two drachms; Russian isinglass, forty grains; orange flower water, six fluid drachms.

Dissolve the isinglass by the aid of heat, in half an ounce of the orange flower water, replacing the water as it evaporates. Triturate the other ingredients with the remainder of the orange flower water, into a homogeneous mass in a warmed mortar, then form an emulsion by adding the solution of isinglass, stir as it cools and set aside to gelatinize.

This is an opaque emulsion, but possesses all the advantages of this form of preparation. The flavoring ingredient may be changed to suit the taste, bearing in mind the ascertained fact that the bitter almond flavor most completely disguises that of cod liver, and perhaps of most other oils.

Wafer Envelopes.—The wafer is a preparation rarely used in this country, but much employed abroad for enveloping doses of medicine, especially in the form of powder. We have met with no recipe for its preparation in any of the works on pharmacy, and have heretofore obtained only those imported from France.

In the absence of any directions in the books, we have adopted the following process with complete success:

Two sad-irons are warmed to a temperature at which they may be touched without burning the fingers, not so hot as to occasion a globule of water to run off when thrown on the level surface. One of the irons is maintained at a slightly increased temperature by inverting it over the gas furnace; a very little oil of almonds or butter, on a fragment of cotton cloth, is now rubbed over the surface of each iron. A portion of the finest wheaten flour, mixed with water into a smooth batter or thin paste, is now poured on the inverted iron, and the other iron is immediately pressed firmly upon it. After a minute or two the wafer is removed and trimmed into shape. The French wafers are cut into circular disks of about 3½ inches diameter, which appears to be done by the use of annular steel punches. We think the square wafer possesses some advantage for enveloping powders and pills, by folding the corners into the center. In using the wafer, it is to be moistened by dipping into a tumbler of water, laid on the palm of the hand, the powder or pill dropped in the center, the edges folded over it, when it may be swallowed like an oyster, without tasting its contents.

Suppositories.—"Machine-made suppositories," of elegant quality and finish, made of cocoa butter, with a variety of medicinal ingredients, have lately been introduced in this city, and have led to inquiries among our pharmaceutists as to the best arrangements for producing them.

To what has been already published by A. B. Taylor, vol. xxiv., p. 211, of this journal, and in *Parrish's Pharmacy*, second edit., p. 611, we may add a few practical suggestions, the result of recent experience in this manipulation. The consistence of cocoa butter alone is not well adapted to the preparation of an elegant and firm suppository. It is a good basis when combined with a harder and rather less fusible material. We have found wax in the proportion of one part to five of the cocoa butter, to answer a very good purpose.

The use of metallic moulds for making suppositories, though no doubt convenient and readily obtained at moderate expense from syringe makers, is quite unnecessary, as the paper cone is convenient, always accessible, and may be adapted to any size required. Perhaps the most suitable weight for a suppository is 25 grains. and there seems no advantage in departing from this standard for ordinary purposes. They are readily introduced when much larger, as indicated in the prescriptions of Drs. Pancoast and S. W. Mitchell, published in the paper already referred to; but, on the other hand, they are, perhaps, equally efficacious when still smaller, the butter of cocoa being merely used as a vehicle, to be increased or diminished at pleasure. The object in having this preparation of an uniform size is to facilitate the construction of the paper moulds, which, when a suppository of 25 grains is prescribed, may be made as follows :

A piece of very stout glazed paper is cut up into oblong pieces, 2¼ inches long by 1½ wide, and rolled into a cone, which should be 1⅝ inches long and half an inch at the base; the free end of the paper is secured by a tip of sealing wax, and at the extreme point of the cone an eighth of an inch is clipped off, and the opening sealed up. The object is next to arrange these cones with the open end in a proper position to be filled with ingredients; this is conveniently done in a shallow vessel of flax-seed—sand is objectionable from its liability, if accidentally thrown into the cone, to produce irritation when the suppository is applied. The butter of cocoa and wax should be melted by a gentle heat, and then the active ingredients added and constantly stirred until it begins to chill, then poured into the paper cones and set aside to harden. The paper should not be removed from the suppository until it has become thoroughly hardened, and by this means it will acquire a clear, polished surface. The time required to prepare a dozen or more suppositories is from half an hour to an hour; the physician should be reminded in advance that they cannot be furnished without some little delay.—*Am. Jour. Pharmacy.*

ON THE PRODUCTION OF ALCOHOL IN THE UNITED STATES. *By Frederick Stearns, of Detroit.* — In regard to the questions referred to me upon alcohol, I have the following statement to make :

The points in the query relating to the *production* of alcohol, and the *statistics* of its commercial relations, are evidently the most important, the others being already exhausted in reliable chemical treatises ; hence, I directed my inquiries to the former. I found the construction of a complete table of statistical information was, for various reasons, beyond my power, and that to await the results gathered by the decennial U. S census (now recently taken) would give to statistical tables great accuracy. It is evident the region of the Ohio River valley contributes the largest share of whisky and its derivatives that is produced within the limits of the United States; and the following, part fact and part estimate, copied from a letter of a reliable correspondent, is all I have to offer this year in relation to the matter.

The amount of whisky which finds a market annually in Cincinnati is about five hundred thousand barrels, worth on an average, one year with another, five millions of dollars. This amount is derived from Ohio, and the States bordering the Ohio River. An estimate of the total U. S. product is one million five hundred thousand barrels. This estimate is based upon its average production in several States, and not upon the receipts of the large eastern markets. The present annual manufacture of alcohol in Cincinnati will average forty-six thousand barrels, worth one million eight hundred thousand dollars, estimated to be about one-fourth the whole amount made in the United States. This estimate makes the total average product of the United States, to be one hundred and eighty-four thousand barrels, worth over seven millions of dollars. This estimate includes alcohol made for commercial purposes, for the manufacture of burning fluid, and that purified for making domestic brandy and other liquors, and for exportation for the same purposes.

In Cincinnati the manufacture of alcohol has fallen one-half since 1858, when it reached its maximum. This is partly owing to the falling off in the foreign demand, which was large in 1858, but owing to a protective tariff, it has been nothing since.

Whisky is produced from corn, rye, barley, middlings, (refuse from wheat in making flour), and oats, the proportion being about eighty per cent. of corn, the remaining twenty per cent. equally divided between the others.

About one million one hundred and twenty thousand dollars capital is invested in the stills, fixtures, and business of the whisky distillers, the product of which finds a market in Cincinnati.

In the manufacture of alcohol the capital invested in Cincinnati is three hundred and fifty thousand dollars.

The most notable impurity is the grain or fusel oil.

It has been asked me whether, for the purpose of manufacturing alcohol for burning fluid of high hydrometer-proof and yet comparatively low alcoholic strength, it could not by distillation in the presence of a small proportion of sulphuric acid, be contaminated with enough ether to heighten its proof without showing by hydrometer its real alcoholic strength. This query I cannot answer, but think it one worthy of investigation.

It is estimated that until the introduction of illuminating coal-oils, by far the largest proportion of the common alcohol produced was employed in the manufacture of burning fluid. Since, however, the largest proportion is employed under the name of pure and proof spirit in the manufacture of domestic brandy, gin, etc.—*Proc. American Pharmaceutical Association*, 1860.

LONGEVITY.—There are at present in the Ratcliff and Wapping Workhouses of the Stepney Union, 69 inmates, whose collective ages amount to 5,538 years, giving an average of 80 years for each inmate, and 292 persons in the above-named workhouses of the Stepney Union whose average ages are 70 years. The following ages of some decased members of the Society of Friends, during the present year, are taken from the obituary of the *Friend*, a monthly journal published by that body. They are as follows: 84, 84, 85, 85, 85, 86, 86, 87, 87, 88, 88, 89, 89, 89, 91, 91, 91, 91, 91, 91, 92, 92, 93, 93—making a total of 2,128 years, with an average for each life of rather more than 88½ years. Fifty lives in the same period give 4,258 years, with an average of 85 per life. These facts entitle one class of men to a favorable comparison with the Peerage, as regards longevity. It is not a little remarkable, that the members of the Peerage, who have died since the year commenced, twenty-four in number, have exactly completed, on the average, the full measure of the allotted span of human life, the "three-score years and ten." They are as follows: Viscount Arbuthnott, 82; Lord Londesborough, 54; Viscount Southwell, 83; Viscount Gormanston, 84; Lord Oranmore, 72; Bishop of Rochester, 84; Earl of Longford, 42; Baroness Stratheden, 63; Lord Fitzgerald, 60; Viscount Guillamore, 27; Baroness Wentworth, 67; Earl of Strafford, 82; Lord Heytesbury, 80; Archbishop of York, 71; Lord Sandys, 68; Lord Elphinstone, 53; Bishop of Worcester, 77; Earl of Lauderdale, 76; Earl of Cawdor, 70; Lord Ffrench, 74; Earl of Leven and Melville, 75; Duke of Richmond, 69; Earl Manvers, 82; Earl of Dundonald, 85. Total of united ages, 1,680 years, which, being divided by 24, gives exactly 70 years to each.—*Dublin Med, Press.*

EFFICACY OF CHLORODYNE.—In regard to the question asked by your correspondent in regard to chlorodyne, I can give him the following information: In the distressing cough of phthisis I have found it most useful, and not only does it relieve the cough, but when given in doses of three ounces at bed-time, it has a most beneficial effect in allaying hectic. I have given it in the last stages of this disease, and have never seen any bad effects from it. It is, however, in diarrhœa that I have employed it with the greatest benefit, three or four doses, of three ounces each, seldom failing to relieve even very severe attacks. The great advantage that I have found in chlorodyne over opium, morphia, etc., is that the administration of it is never followed by unpleasant effects, as headache, nausea, etc. I have not been led to form this opinion in a hasty manner, but have tried this valuable medicine in numerous cases, and have seldom been disapproved by it.—*J. St. Wilders, House-Surgeon, Queen's Hospital, Birmingham, in Med. Times.*

STATISTICS OF LITHOTOMY.—From the establishment of the Norfolk and Norwich Hospital, in July, 1772, to the end of last year, being a period of eighty-seven years and a half, 863 cases of stone in the bladder were admitted within its walls, and the calculi removed by the following methods: Lateral operations, 803; extracted by dilatation, (female), 41; lithotrity, 11; median operation, 8. Total, 863.

Of the 863 cases, 698 resulted in recovery, and 105 terminated fatally, giving a proportion of 1 in 7.647. Of the 41 females, 39 were cured, two died, the proportion being 1 in 10.5. One case ended fatally after the performance of the median operation. Taking the whole number, the recoveries were 755; the deaths, 108; the proportion 1 in 7.99. The males numbered 822; the females 41, or 1 in 20.

Of late years the average of success has been high. From June, 1853, to December, 1859, a period of six years and a half, 69 patients were operated on; 4 died, the rest recovered; the proportion being 1 in 17.25. If 9 lithotrities and 3 females be omitted, there remain 57, on whom the lateral and median operations were performed, and as the deaths are 4, the result is 1 in 14.25.

It is a singular fact, that in two distinct periods during the existence of the institution, have forty cases of stone been operated on successfully without death. The first instance occurred to M. Martineau; the second happened in a succession of cases, as they occurred to the surgeons of the day, Messrs Dalrymple, Crosse and Norgate.

The number of calculi which have been removed by operation at this hospital, amounted to 982 specimens, which have been carefully collected, and preserved in the museum of the institution. They form the largest collection in the world of human urinary calculi, exclusively the produce of a single establishment, and are arranged in numerical and chronological order, with an inscription to each, distinguishing the name of the operator, the name and age of the patient, the weight of the calculus removed, the day and year of the operation, and the date of the patient's discharge as cured, or his death when the result was unfavorable. A section has also been made of every calculus, when such was practicable. To this fine collection may be added 542 other specimens of calculi presented to the museum of the hospital by different surgeons.—*London Lancet.*